XR-CA610X

SERVICE MANUAL

US Model

Ver 1.1 2001.05

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Model Name Using Similar Mechanism	XR-C5300X
Tape Transport Mechanism Type	MG-25F-136

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms,
4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

Cassette Player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B NR	Dolby NR off
TYPE II, IV	67 dB	61 dB
TYPE I	64 dB	58 dB

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	66 dB (stereo), 72 dB (mono)
Harmonic distortion at 1 kHz	
	0.6 % (stereo), 0.3 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	52 W × 4 (at 4 ohms)

General

Outputs	Audio outputs (2) Power antenna relay control lead Power amplifier control lead
Inputs	Telephone ATT control lead BUS control input connector BUS audio input connector Remote controller input connector Antenna input connector
Tone controls	Bass ±10 dB at 62 Hz Treble ±10 dB at 16 kHz
Loudness	100 Hz +8 dB 10 kHz +2 dB
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 176 mm ($7^1/_8 \times 2 \times 7$ in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm ($7^1/_4 \times 2^1/_8 \times 6^3/_8$ in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb 10 oz)
Supplied accessories	Card remote commander Parts for installation and connections (1 set) Front panel case (1)

Note

This unit cannot be connected to a digital preamplifier or an equalizer.

Design and specifications are subject to change without notice.

FM/AM CASSETTE CAR STEREO

9-870-274-12
2001E0500-1
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Sony Corporation
e Vehicle Company
Shinagawa Tec Service Manual Production Group

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Notes on chip component replacement

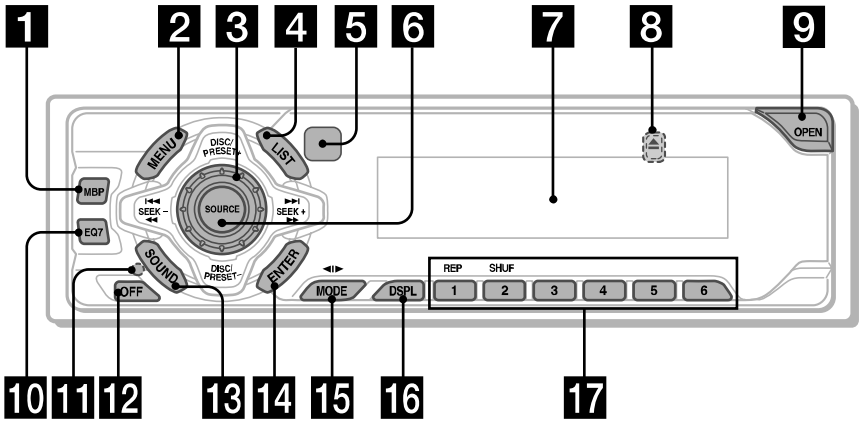
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

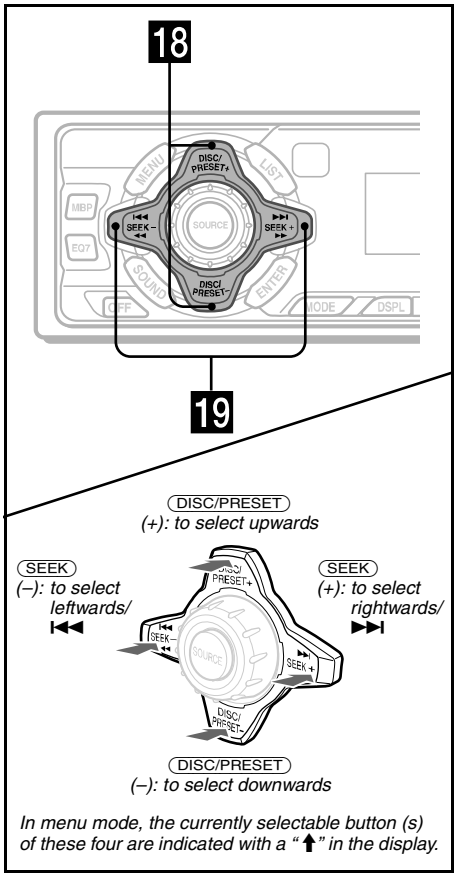
Location of controls

Refer to the pages listed for details.
TAPE : During tape playback RADIO : During radio reception MENU : During menu mode
CD/MD : During CD/MD playback (optional) TV : During TV reception (optional)



1 **MBP button** 16
2 **MENU button** 8, 9, 10, 11, 12, 15, 16, 17, 19, 20, 21, 22
3 **Volume control dial**
4 **LIST button**
RADIO 11, 12
CD/MD 19, 20
5 **Receptor for the card remote commander**
6 **SOURCE (Power on/Tape/Radio/CD/MD/TV) button** 5, 9, 10, 11, 16, 17, 19, 21, 22, 23
7 **Display window**
8 **⏏ (eject) button** (located on the front side of the unit, behind the front panel) 9, 23
9 **OPEN button** 7, 9
10 **EQ7 button** 16
11 **RESET button** (located on the front side of the unit, behind the front panel) 7
12 **OFF (Stop/Power off) button*** 5, 7, 9, 17
13 **SOUND button** 14, 16
14 **ENTER button**
RADIO 12
MENU 8, 9, 10, 11, 12, 15, 16, 17, 19, 20, 21, 22, 23
CD/MD 19, 20
15 **MODE (◀I▶) button**
TAPE 9
RADIO 10, 11
CD/MD 17, 19
TV 21
16 **DSPL (display mode change) button** 12, 18, 19
17 **Number buttons**
TAPE
(1) **REP** 9
RADIO 10, 11
CD/MD
(1) **REP** 18
(2) **SHUF** 18
TV 22

* **Warning when installing in a car without an ACC (accessory) position on the ignition switch**
After turning off the ignition, be sure to press (OFF) on the unit for 2 seconds to turn off the clock display.
Otherwise, the clock display does not turn off and this causes battery drain.



In menu mode, the currently selectable button (s) of these four are indicated with a "⬆" in the display.

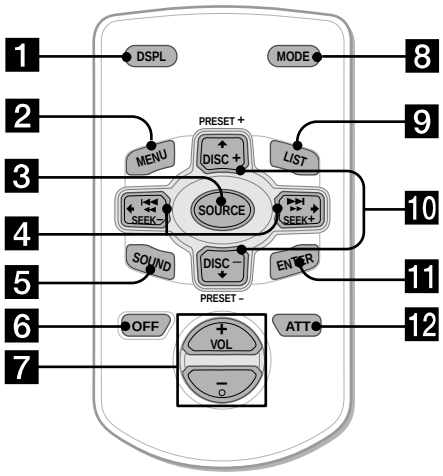
18 DISC/PRESET buttons (+/–)

RADIO	*10, 11, 12*
MENU	*8, 9, 10, 11, 12, 15, 16, 17, 19, 20, 21, 22*
CD/MD	*17, 19, 20*
TV	*21*

19 SEEK buttons (–/+)

TAPE	*9*
RADIO	*10, 11*
MENU	*8, 9, 14, 15, 16, 17, 21*
CD/MD	*17, 19, 20*
TV	*22, 23*

Card remote commander RM-X114



The corresponding buttons of the card remote commander control the same functions as those on this unit.

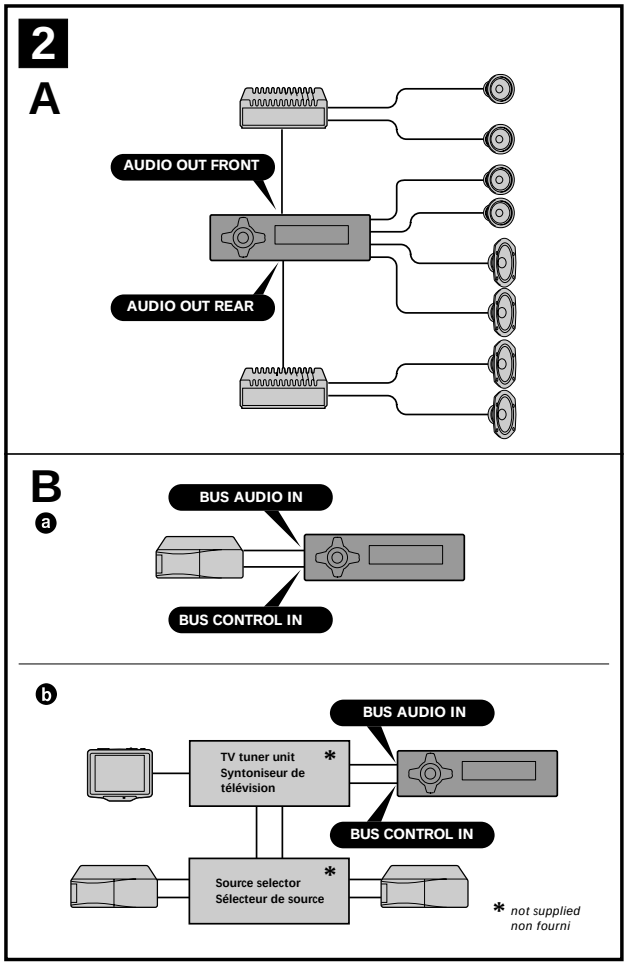
1 DSPL button
2 MENU button
3 SOURCE button
4 SEEK (⬅/➡) buttons
5 SOUND button
6 OFF button
7 VOL (–/+) buttons
8 MODE button
9 LIST button
10 DISC/PRESET(⬆/⬇) buttons
11 ENTER button
12 ATT button

Note

If the units is turned off by pressing (OFF) for 2 seconds, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a cassette is inserted to activate the unit first.

Tip

Refer to "Replacing the lithium battery" for details on how to replace the batteries (page 24).



Cautions

- This unit is designed for negative ground 12 V DC operation only.
- Do not get the wires under a screw, or caught in moving parts (e.g. seat railing).
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- **Run all ground wires to a common ground point.**
- Be sure to insulate any loose unconnected wires with electrical tape for safety.

Notes on the power supply cord (yellow)

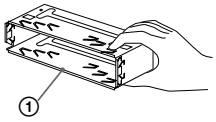
- When connecting this unit in combination with other stereo components, the connected car circuit's rating must be higher than the sum of each component's fuse.
- When no car circuits are rated high enough, connect the unit directly to the battery.

Parts list (1)

The numbers in the list are keyed to those in the instructions.

Caution

Handle the bracket ① carefully to avoid injuring your fingers.



Connectionexample(2)

***Notes* (2-A)**

- *Be sure to connect the ground cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

***Tip* (2-B-b)**

For connecting two or more changers, the source selector XA-C30 (optional) is necessary.

Connectiondiagram(3)

❶ **To a metal surface of the car**
First connect the black ground lead, then connect the yellow and red power input leads.

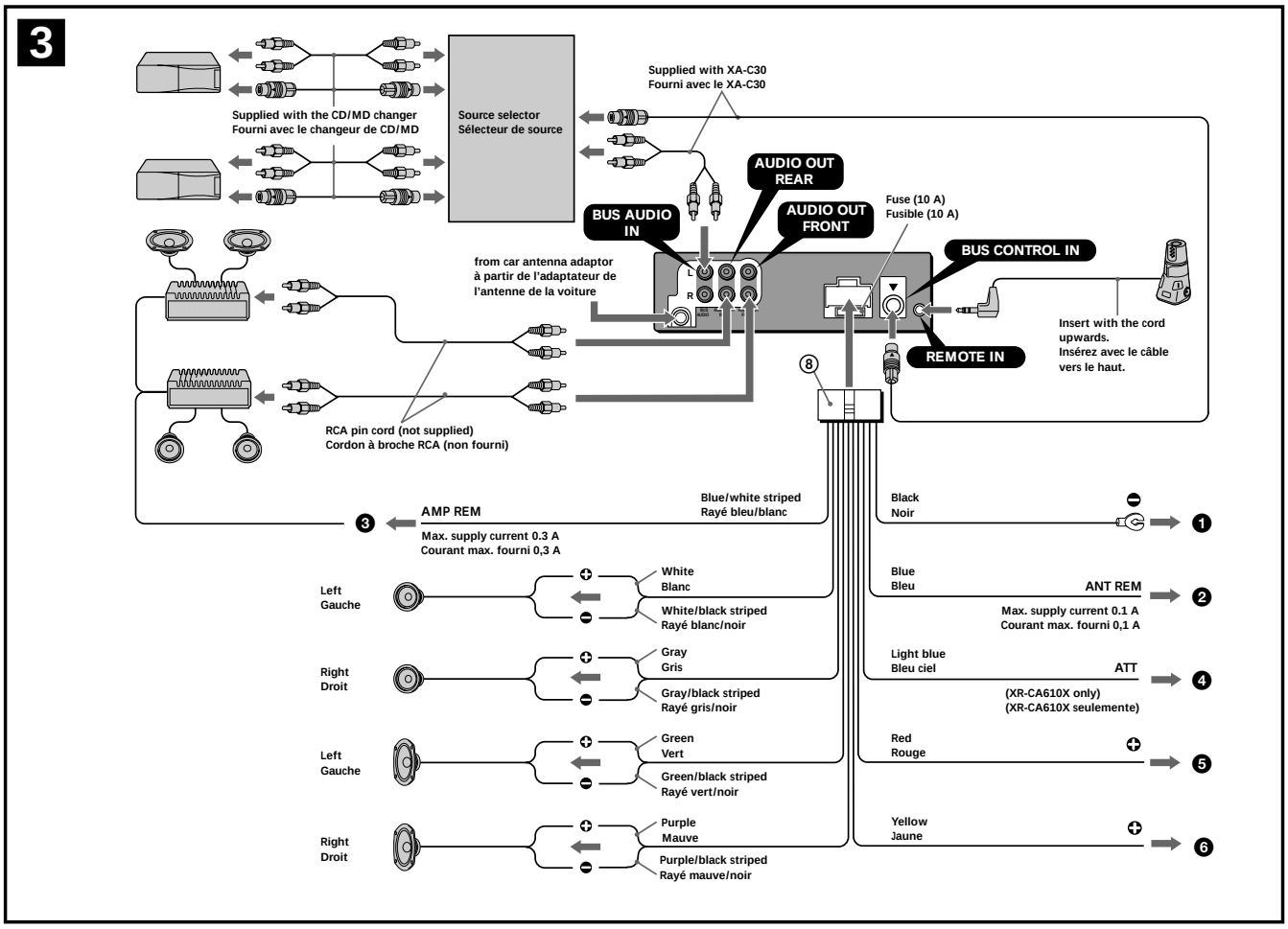
❷ **To the power antenna control lead or power supply lead of antenna booster amplifier**
Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the interface cable of a car telephone**

❺ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energised at all times.*
  Be sure to connect the black ground to it first.
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❻ **To the +12 V power terminal which is energised at all times**
Be sure to connect the black ground to it first.



Notes on the control and power supply leads

- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without relay box cannot be used with this unit.*

Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection

- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*

Précautions

- Cet appareil est conçu pour fonctionner sur courant continu de 12 V avec masse négative.
- Evitez de fixer des vis sur les câbles ou de coincer ceux-ci dans des pièces mobiles (par exemple, armature de siège).
- Avant d'effectuer des raccordements, éteignez le moteur pour éviter les courts-circuits.
- Branchez les fils d'entrée d'alimentation **jaune** et **rouge** seulement après avoir terminé tous les autres branchements.
- **Rassemblez tous les fils de terre en un point de masse commun.**
- Veillez à isoler avec du chatterton tout fil lâche non raccordé.

Remarques sur le cordon d'alimentation (jaune)

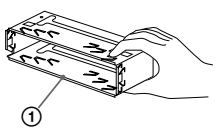
- Lorsque cet appareil est raccordé à d'autres éléments stéréo, la valeur nominale des circuits de la voiture raccordée doit être supérieure à la somme des fusibles de chaque élément.
- Si aucun circuit de la voiture n'est assez puissant, raccordez directement l'appareil à la batterie.

Liste des composants(1)

Les numéros de l'illustration correspondent à ceux des instructions.

Attention

Manipulez précautionneusement le support ① pour éviter de vous blesser aux doigts.



Exemple de raccordement(2)

***Remarques* (2-A)**

- *Raccordez d'abord le fil de masse avant de connecter l'amplificateur.*
- *Si vous raccordez un amplificateur de puissance et que vous n'utilisez pas l'amplificateur intégré, le bip sonore est désactivé.*

***Conseil* (2-B-b)**

Dans le cas du raccordement de deux changeurs ou plus, le sélecteur de source XA-C30 (en option) est indispensable.

Schémas de connexion(3)

❶ **À un point métallique de la voiture**
Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation jaune et rouge.

❷ **Vers le fil de commande de l'antenne électrique ou le fil d'alimentation de l'amplificateur d'antenne**
Remarque
- *Il n'est pas nécessaire de raccorder ce fil s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir "Remarques sur les fils de commande et d'alimentation".*

❸ **Pour effectuer le raccordement à AMP REMOTE IN de l'amplificateur de puissance en option**
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ **Vers le cordon de liaison d'un téléphone de voiture**

❺ **À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**
Remarque
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est en permanence sous tension.*
  Raccordez d'abord le fil de masse noir.
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir "Remarques sur les fils de commande et d'alimentation".*

❻ **À la borne +12 V qui est alimentée en permanence**
Raccordez d'abord le fil de masse noir.

Remarques sur les fils de commande et d'alimentation

- *Le fil de commande de l'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez l'appareil sous tension.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière latérale, vous devez raccorder le fil de commande d'antenne électrique (bleu) ou le fil d'entrée d'alimentation d'accessoire (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre revendeur.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

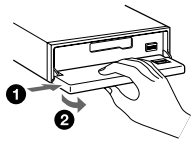
Connexion pour la conservation de la mémoire

Lorsque le fil d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

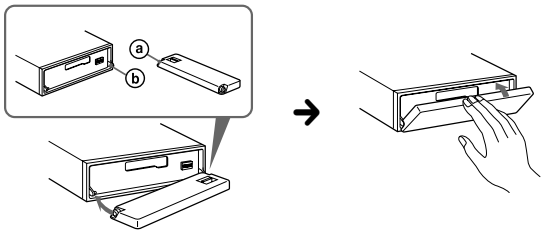
Remarques sur la connexion des haut-parleurs

- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité de manipulation adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleur au châssis de la voiture, et ne raccordez pas les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de masse de cet appareil à la borne négative (–) de l'enceinte.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*

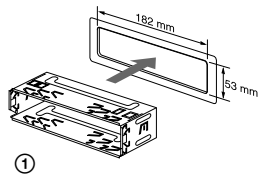
4 A



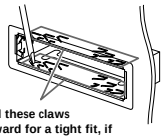
B



5 1



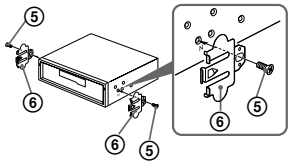
2



Bend these claws outward for a tight fit, if necessary.

Plier ces griffes pour assurer une prise correcte si nécessaire.

3



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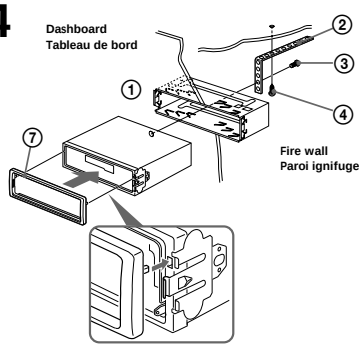
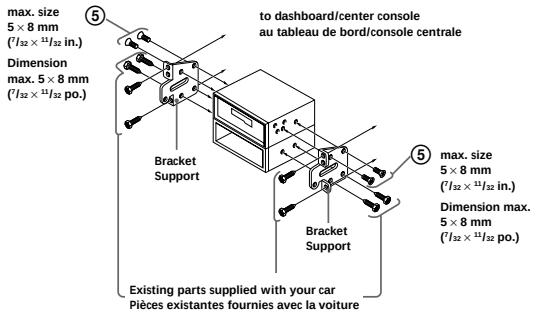
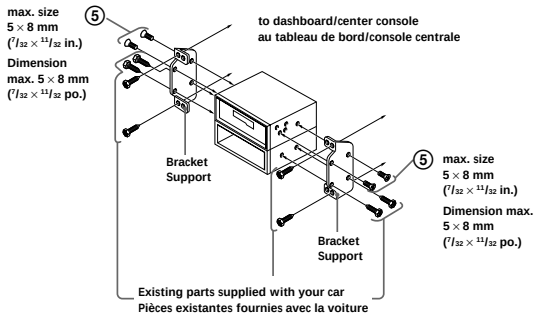


6 A TOYOTA



B NISSAN



Precautions

- Choose the installation location carefully so that the unit will not interfere with normal driving operations.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperatures, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.
- There must be a distance of at least 15 cm between the cassettes slot of the unit and shift lever to insert cassette easily. Choose the installation location carefully so the unit does not interfere with gear shifting and other driving operations.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

How to detach and attach the front panel (4)

Before installing the unit, detach the front panel.

4-A To detach

Before detaching the front panel, be sure to press (OFF). Press (OPEN), then slide the front panel to the right side, and pull out the left side.

4-B To attach

Place the hole ⓐ in the front panel onto the spindle ⓑ on the unit as illustrated, then push the left side in.

Mounting example (5)

Installation in the dashboard

Mounting the unit in a Japanese car (6)

You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.

Note

To prevent malfunction, install only with the supplied screws ⑤.

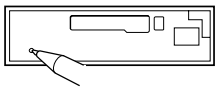
Warning when installing in a car without ACC (accessory) position on the ignition key switch

Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turning off the engine.

When you press (OFF) only momentarily, the clock display does not turn off and this causes battery wear.

Reset button

When the installation and connections are completed, be sure to press the reset button with a ball-point pen, etc.



Précautions

- Choisissez soigneusement l'emplacement d'installation pour que l'appareil ne gêne pas le chauffeur pendant la conduite.
- Evitez d'installer l'appareil dans un endroit exposé à la poussière, à la saleté, à des vibrations excessives ou à des températures élevées comme en plein soleil ou à proximité de conduits de chauffage.
- Pour garantir un montage sûr, n'utilisez que le matériel fourni.
- Pour pouvoir introduire et éjecter aisément la cassette, il doit y avoir une distance d'au moins 15 cm entre le logement de la cassette de l'appareil et le levier de changement de vitesses. Choisissez l'endroit de montage de telle façon que l'appareil ne gêne pas le maniement du levier de changement de vitesses ou toute autre opération de conduite.

Réglage de l'angle de montage

Ajuster l'inclinaison à un angle inférieur à 20°.

Retrait et pose de la façade (4)

Avant d'installer l'appareil, retirez la façade.

4-A Pour retirer

Avant de retirer la façade, n'oubliez pas d'appuyer d'abord sur (OFF). Appuyez sur (OPEN), puis faites glisser la façade vers la droite et retirez-la par la gauche

4-B Pour poser

Fixez la partie ⓐ de la façade sur la partie ⓑ de l'appareil, comme indiqué sur l'illustration, puis appuyez sur le côté gauche jusqu'au déclic.

Exemple de montage (5)

Installation dans le tableau de bord

Installation de l 'appareil dans une voiture japonaise (6)

Cet appareil ne peut pas être installé dans certaines voitures japonaise. Consultez, dans ce cas, votre concessionnaire Sony.

Remarque

Pour éviter tout dysfonctionnement, utilisez uniquement les vis ⑤ pour le montage.

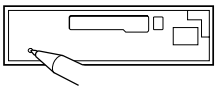
Avertissement en cas d'installation dans une voiture dont le contact ne comporte pas de position ACC (accessoires)

N'oubliez pas d'appuyer sur le bouton (OFF) de l'appareil pendant deux secondes après avoir coupé le moteur de façon à désactiver l'affichage de l'horloge.

Si vous appuyez brièvement sur (OFF), l'affichage de l'horloge n'est pas désactivé, ce qui provoque une usure de la batterie.

Touche RESET

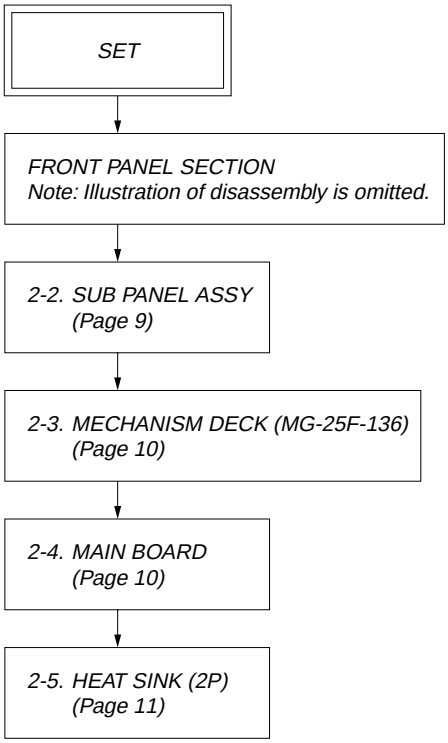
Quand l'installation et les raccordements sont terminés, appuyez sur la touche RESET avec un stylo à bille, etc.



SECTION 2
DISASSEMBLY

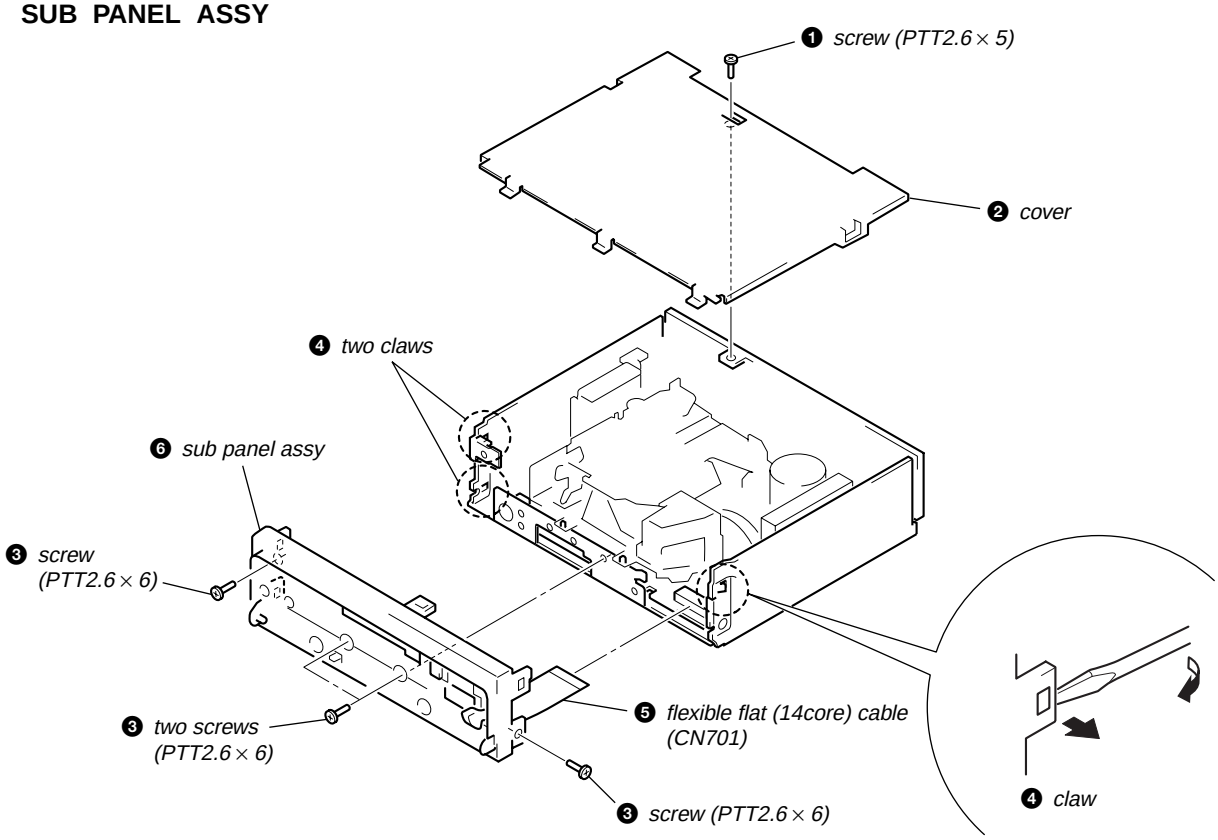
• This set can be disassembled in the order shown below.

2-1. DISASSEMBLY FLOW

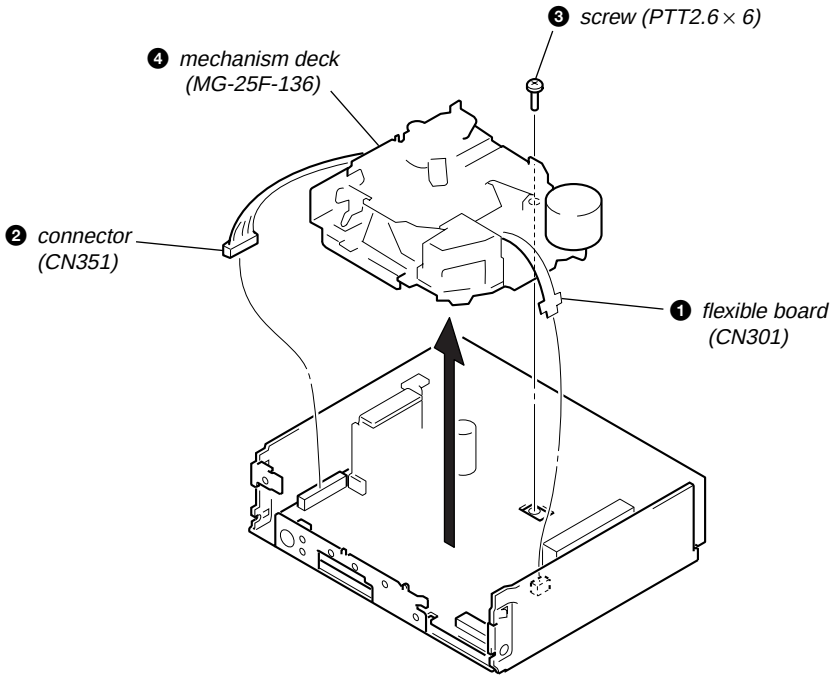


Note: Follow the disassembly procedure in the numerical order given.

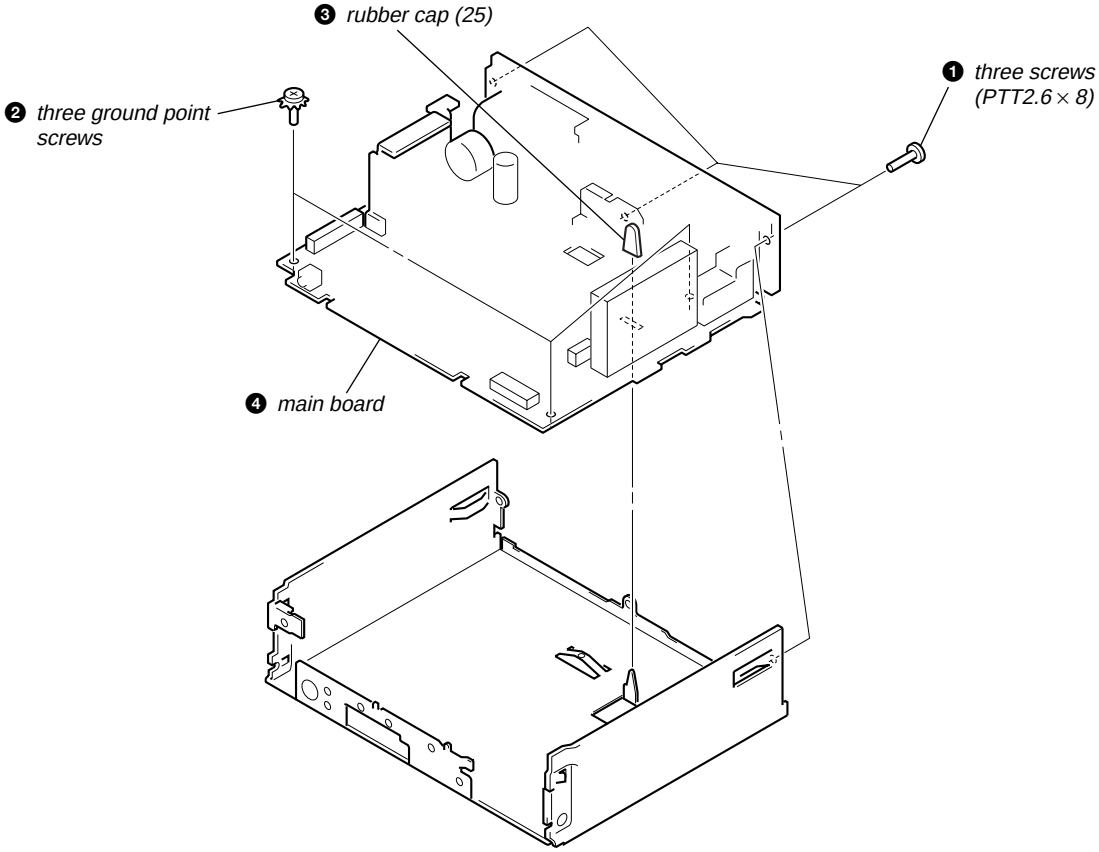
2-2. SUB PANEL ASSY


❶ screw (PTT2.6 × 5)
❷ cover
❹ two claws
❻ sub panel assy
❸ screw (PTT2.6 × 6)
❸ two screws (PTT2.6 × 6)
❺ flexible flat (14core) cable (CN701)
❸ screw (PTT2.6 × 6)
❹ claw

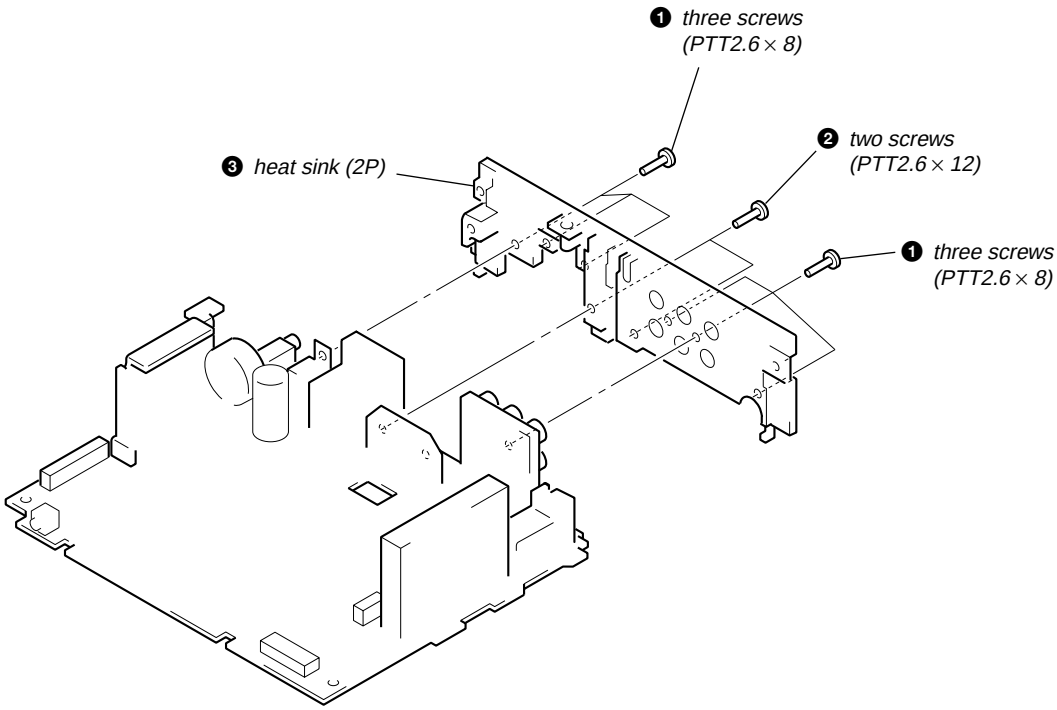
2-3. MECHANISM DECK (MG-25F-136)



2-4. MAIN BOARD



2-5. HEAT SINK (2P)



SECTION 3
ASSEMBLY OF MECHANISM DECK

• This set can be assembled in the order shown below.

3-1. ASSEMBLY FLOW

3-2. HOUSING
(Page 12)

3-3. ARM (SUCTION)
(Page 13)

3-4. LEVER (LDG-A)/(LDG-B)
(Page 13)

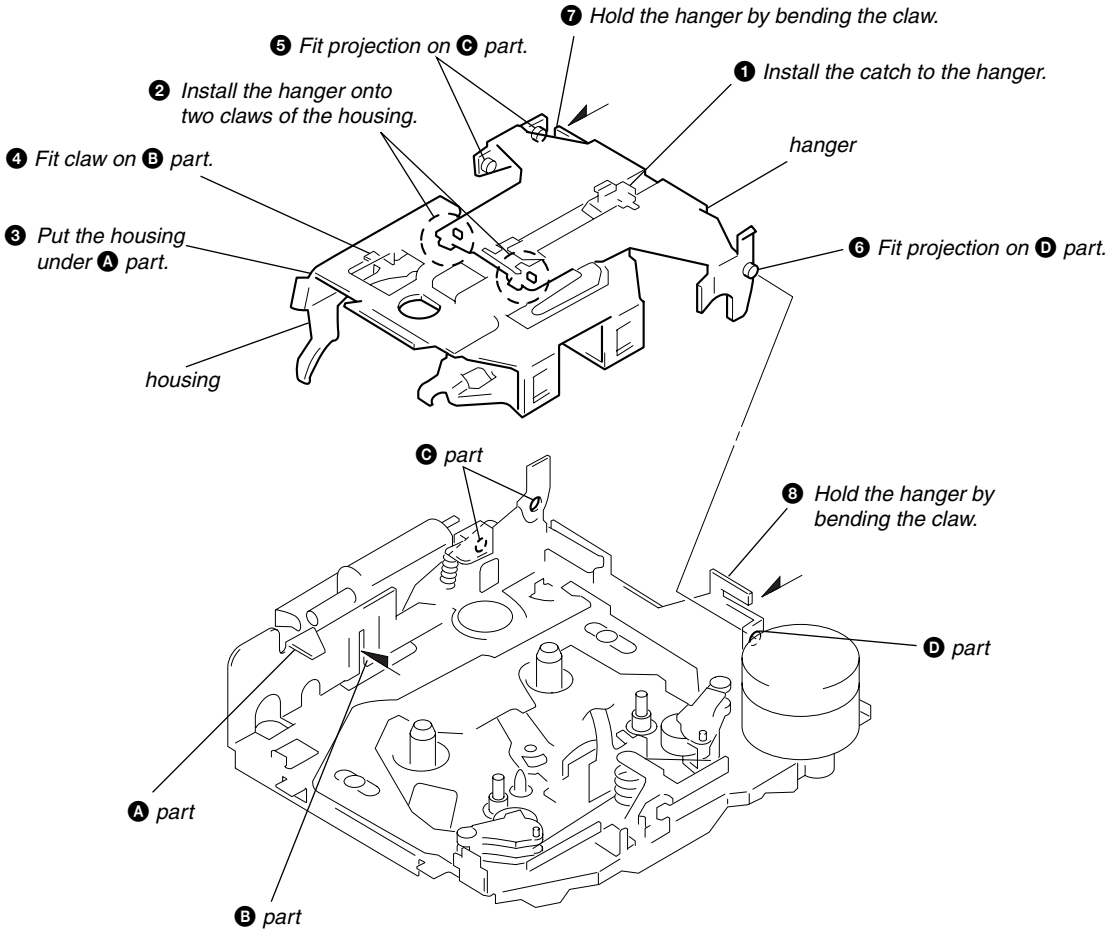
3-5. GEAR (LDG-FT)
(Page 14)

3-6. GUIDE (C)
(Page 14)

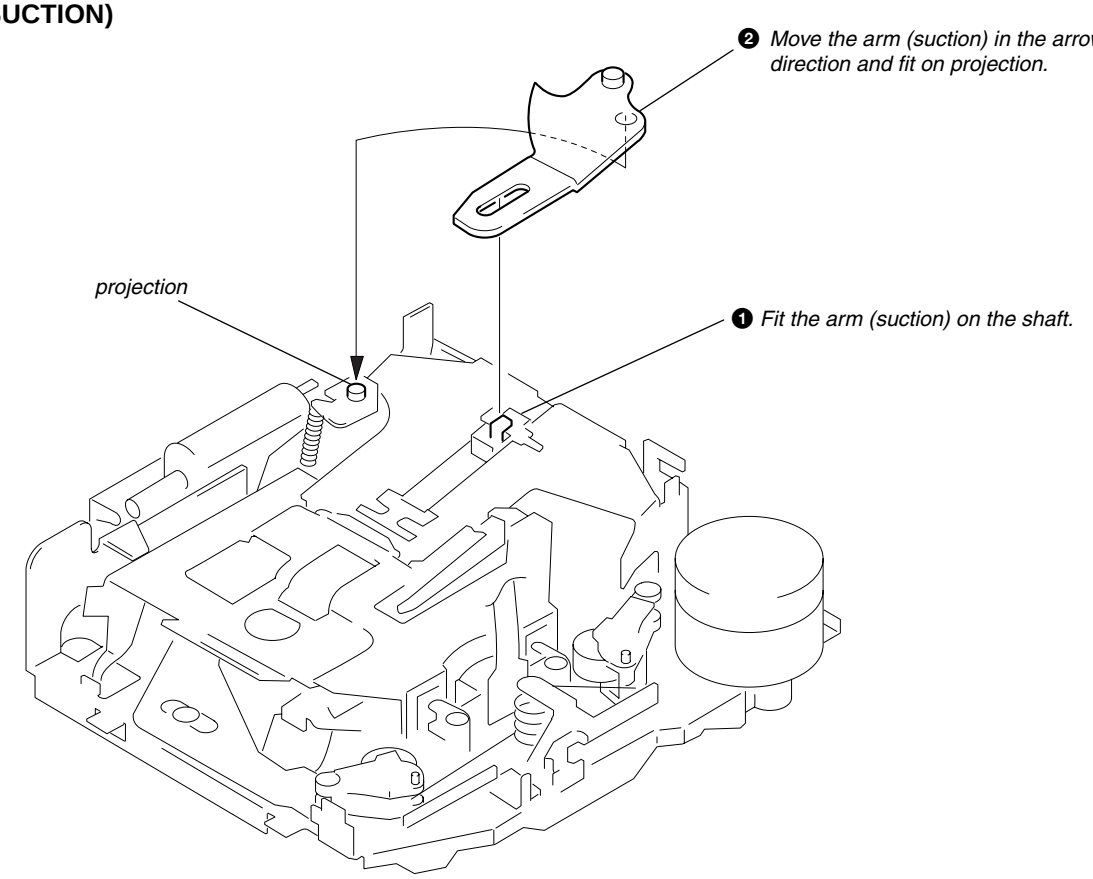
3-7. MOUNTING POSITION OF CAPSTAN/REEL MOTOR (M901)
(Page 15)

Note: Follow the assembly procedure in the numerical order given.

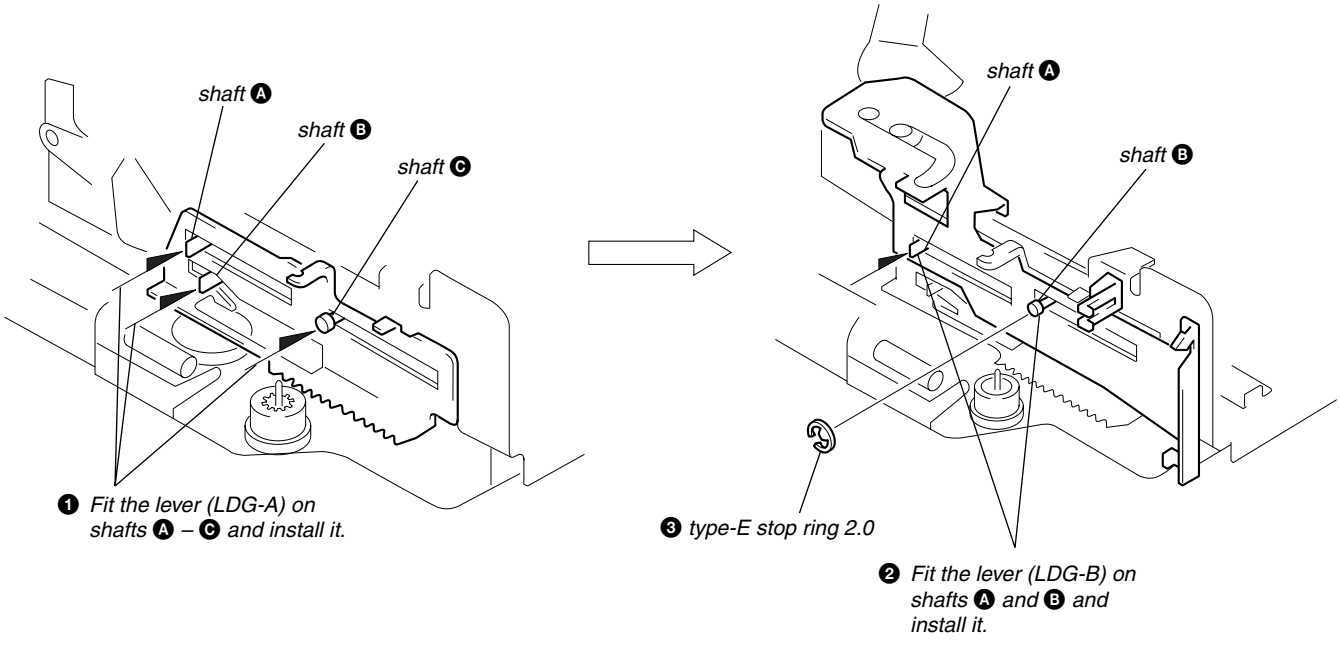
3-2. HOUSING


❼ Hold the hanger by bending the claw.
❺ Fit projection on Ⓒ part.
❶ Install the catch to the hanger.
❷ Install the hanger onto two claws of the housing.
hanger
❹ Fit claw on Ⓑ part.
❸ Put the housing under Ⓐ part.
❻ Fit projection on Ⓓ part.
housing
Ⓒ part
❽ Hold the hanger by bending the claw.
Ⓓ part
Ⓐ part
Ⓑ part

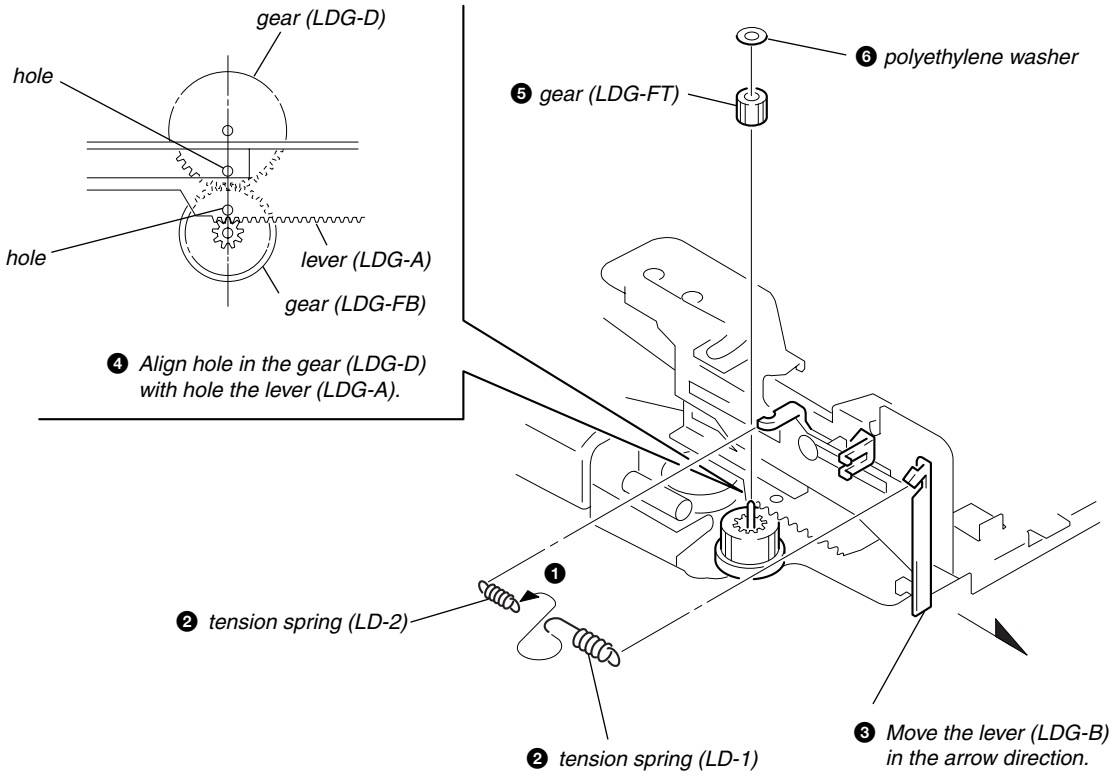
3-3. ARM (SUCTION)



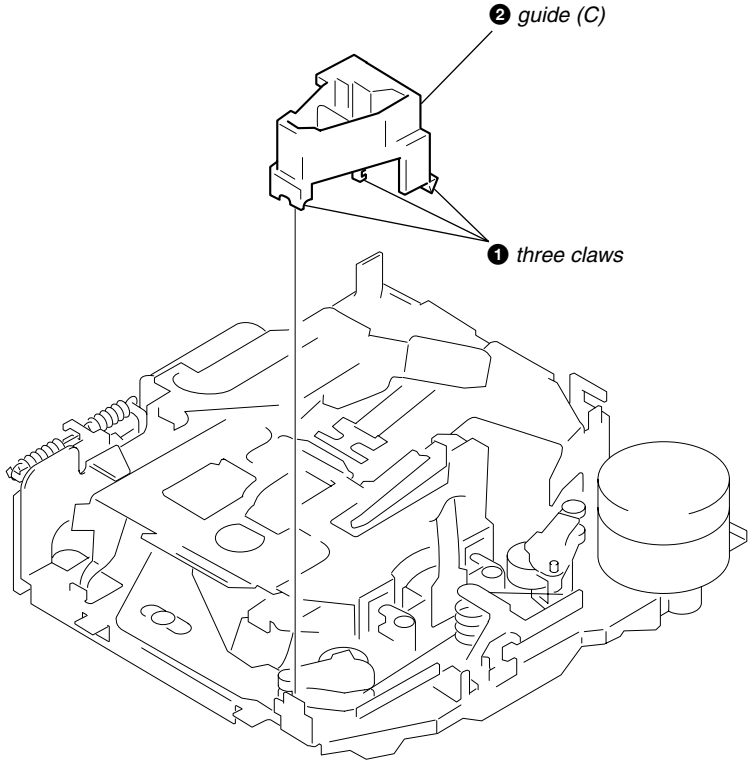
3-4. LEVER (LDG-A) / (LDG-B)


shaft Ⓐ
shaft Ⓑ
shaft Ⓒ
❶ Fit the lever (LDG-A) on shafts Ⓐ – Ⓒ and install it.
shaft Ⓐ
shaft Ⓑ
❸ type-E stop ring 2.0
❷ Fit the lever (LDG-B) on shafts Ⓐ and Ⓑ and install it.

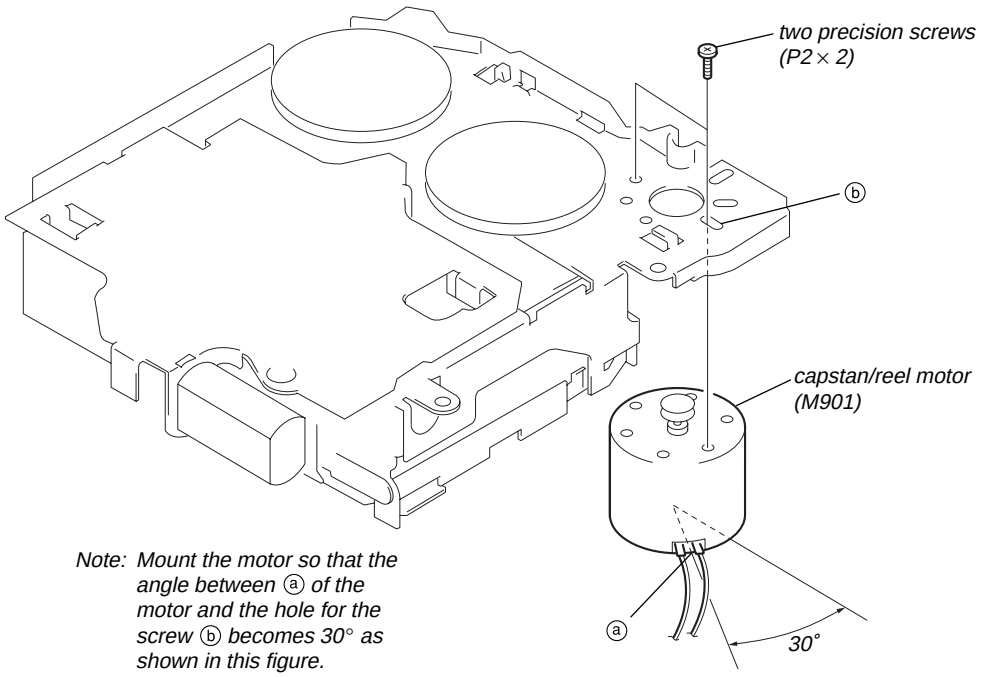
3-5. GEAR (LDG-FT)



3-6. GUIDE (C)



3-7. MOUNTING POSITION OF CAPSTAN/REEL MOTOR (M901)



Note: Mount the motor so that the angle between ⓐ of the motor and the hole for the screw ⓑ becomes 30° as shown in this figure.

SECTION 4
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head pinch roller
   rubber belt capstan
   idler
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the power supply voltage (14.4 V) unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	2.95 – 6.37 mN•m (30 – 65 g•cm) (0.42 – 0.90 oz•inch)
Forward Back Tension	CQ-102C	0.05 – 0.44 mN•m (0.5 – 4.5g•cm) (0.01 – 0.06 oz•inch)
Reverse	CQ-102RC	2.95 – 6.37 mN•m (30 – 65 g•cm) (0.42 – 0.90 oz•inch)
Reverse Back Tension	CQ-102RC	0.05 – 0.44 mN•m (0.5 – 4.5g•cm) (0.01 – 0.06 oz•inch)
FF, REW	CQ-201B	5.89 – 19.61 mN•m (60 – 200 g•cm) (0.83 – 2.78 oz•inch)

• Tape Tension Measurement

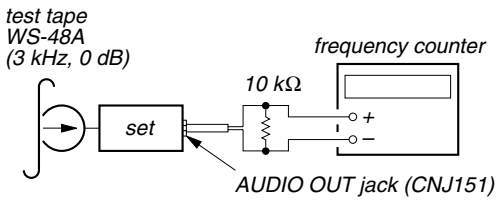
Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 60 g (more than 2.12 oz)
Reverse	CQ-403R	more than 60 g (more than 2.12 oz)

SECTION 5
ELECTRICAL ADJUSTMENTS

TAPE DECK SECTION | 0 dB=0.775 V

Tape Speed Adjustment

Setting:



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the frequency counter becomes 3,000 Hz.

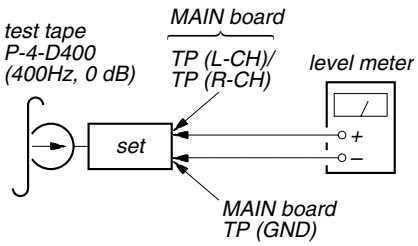
Specification: Constant speed

Frequency counter
2,955 to 3,075 Hz

Dolby Level Adjustment

Setting:

MENU and	
DISC/PRESET + or – buttons	: NR OFF
SOUND (BAS) button	: Center
SOUND (TRE) button	: Center
SOUND (BAL) button	: Center
SOUND (FAD) button	: Center
VOLUME control	: Maximum
D-BASS control	: OFF



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust RV101 (L-CH) and RV201 (R-CH) so that the level meter reading is –6 dB (0.39 V).

Specification:

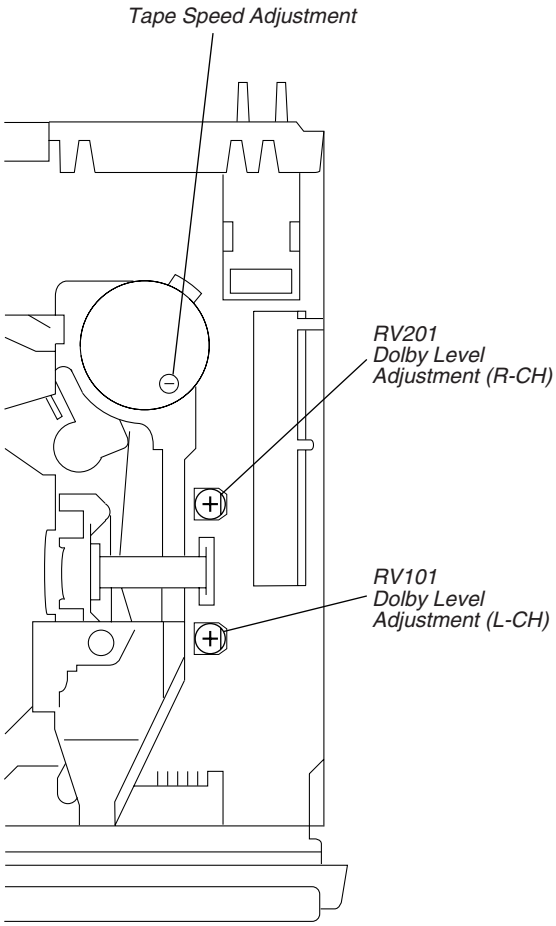
Level meter
–6.5 to –5.5 dB (0.37 to 0.41 V)

TUNER SECTION

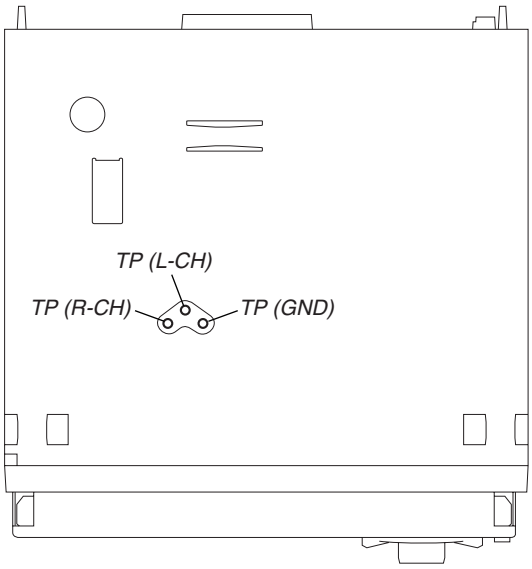
Tuner section adjustments are done automatically in this set.

Adjustment Location:

– SET UPPER VIEW –



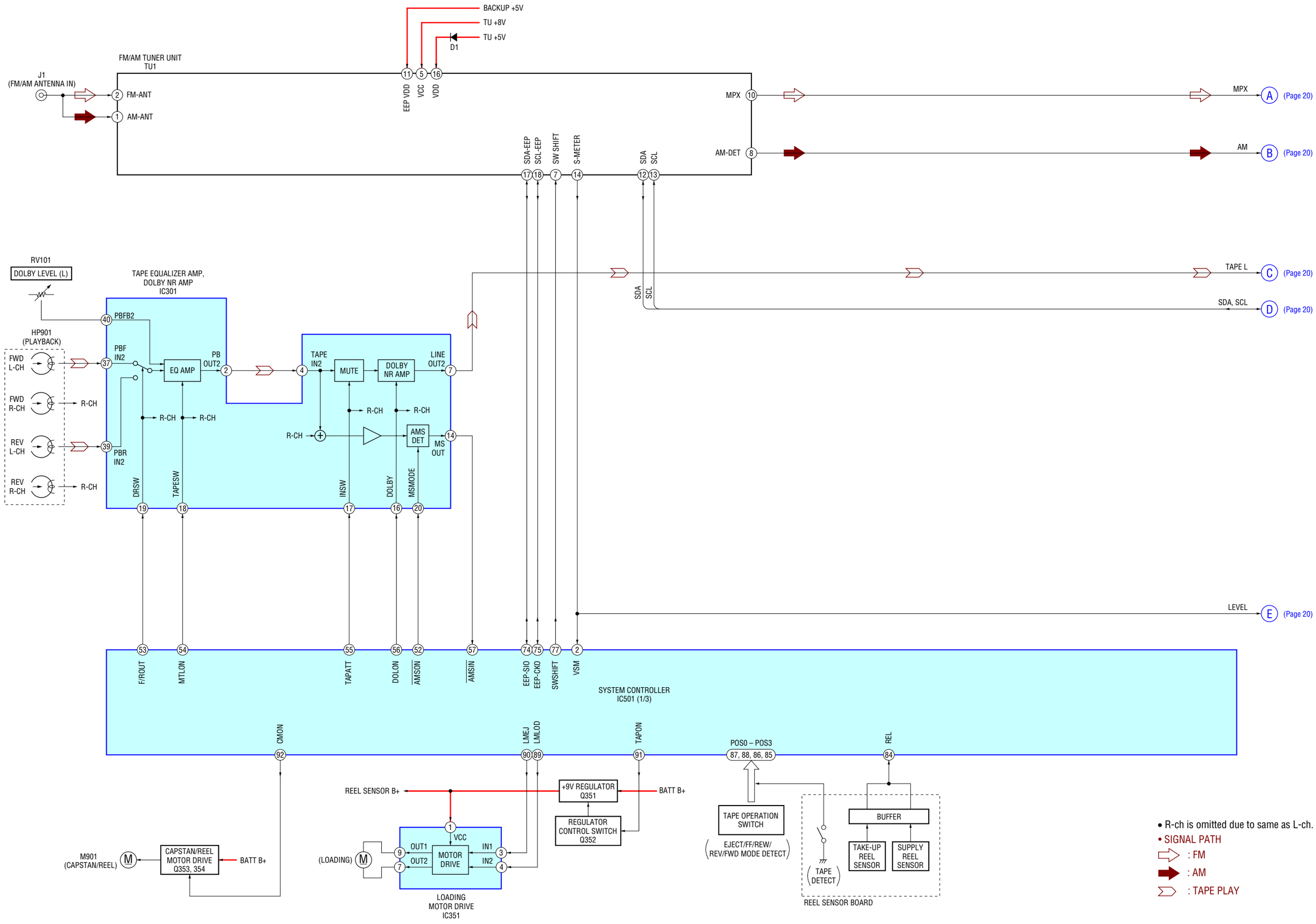
– SET BOTTOM VIEW –



MEMO

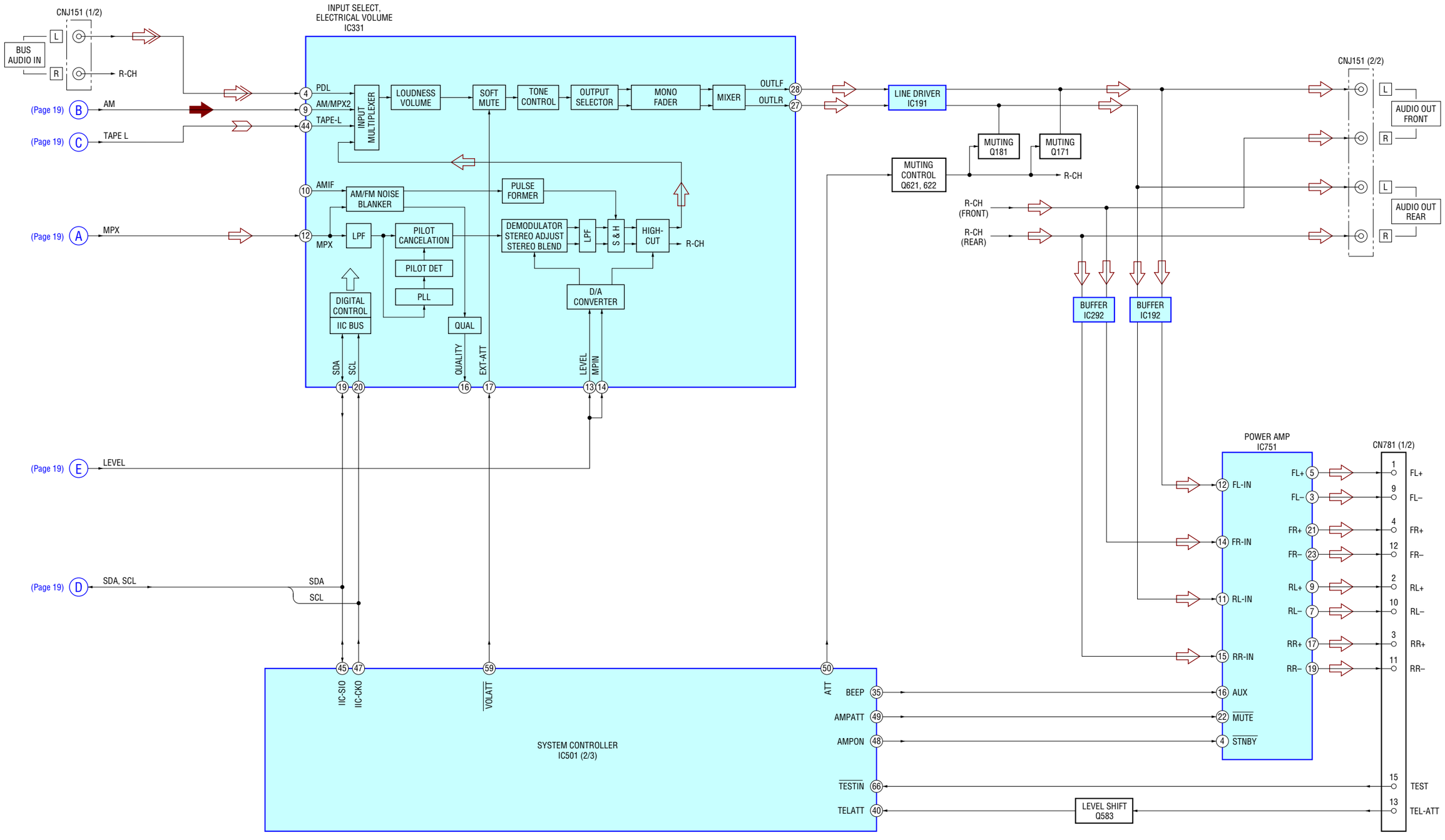
SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM – TUNER/TAPE Section –

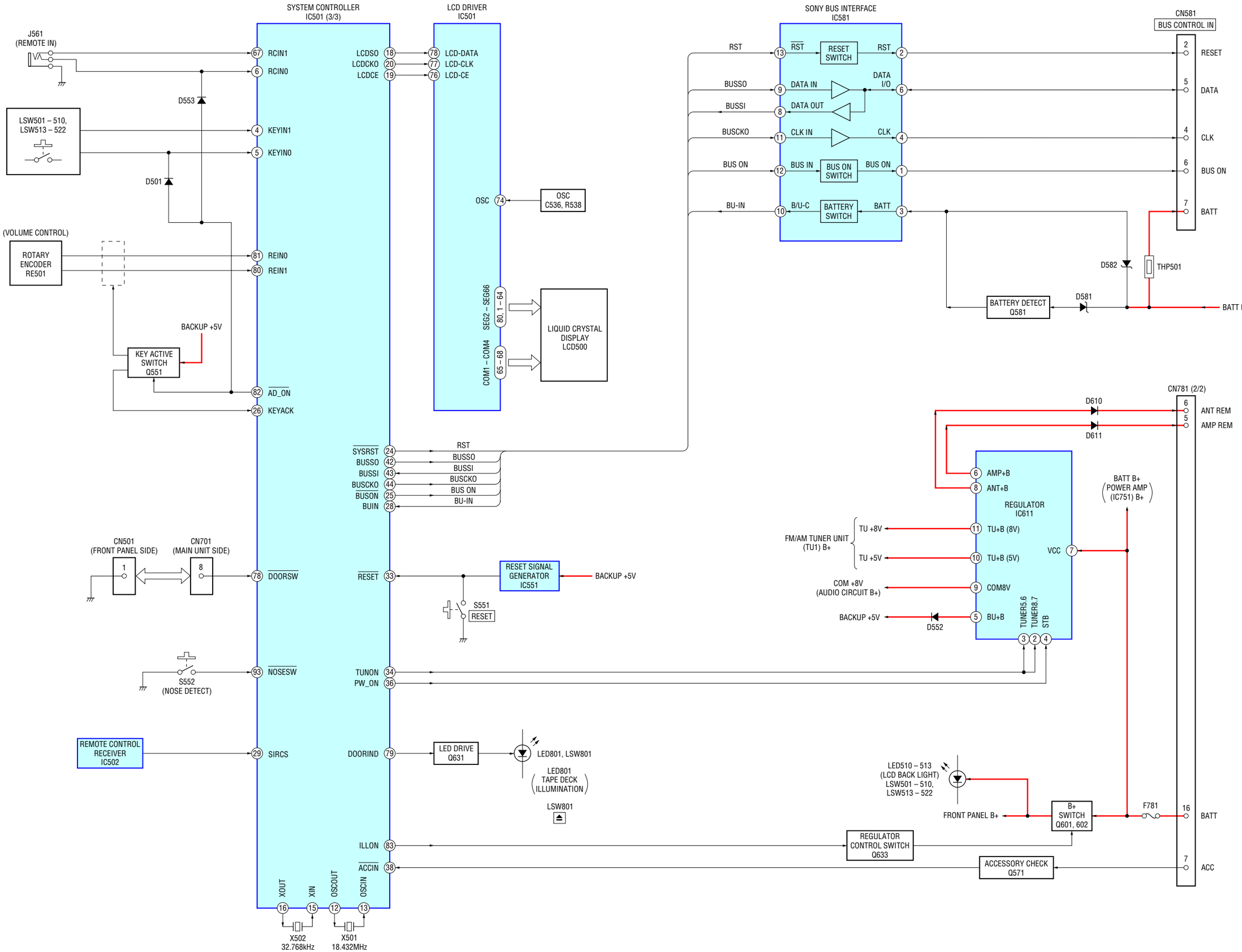


6-2. BLOCK DIAGRAM – MAIN Section –

- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  - : FM
  - : AM
  - : TAPE PLAY
  - : BUS AUDIO IN



6-3. BLOCK DIAGRAM – DISPLAY/KEY CONTROL/BUS CONTROL/POWER SUPPLY Section –



6-4. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▬ : Pattern from the side which enables seeing.

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

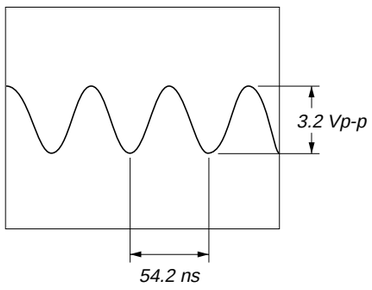
Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- ▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
  [ ] :TAPE PLAYBACK
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  ⇨ : TAPE PLAYBACK
  ⇨ : BUS AUDIO IN

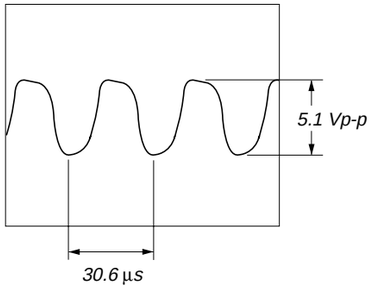
- **Waveforms**

– MAIN Board –

❶ IC501 ⑫ (OSCOUT)

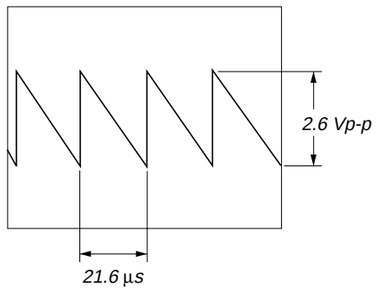


❷ IC501 ⑯ (XOUT)

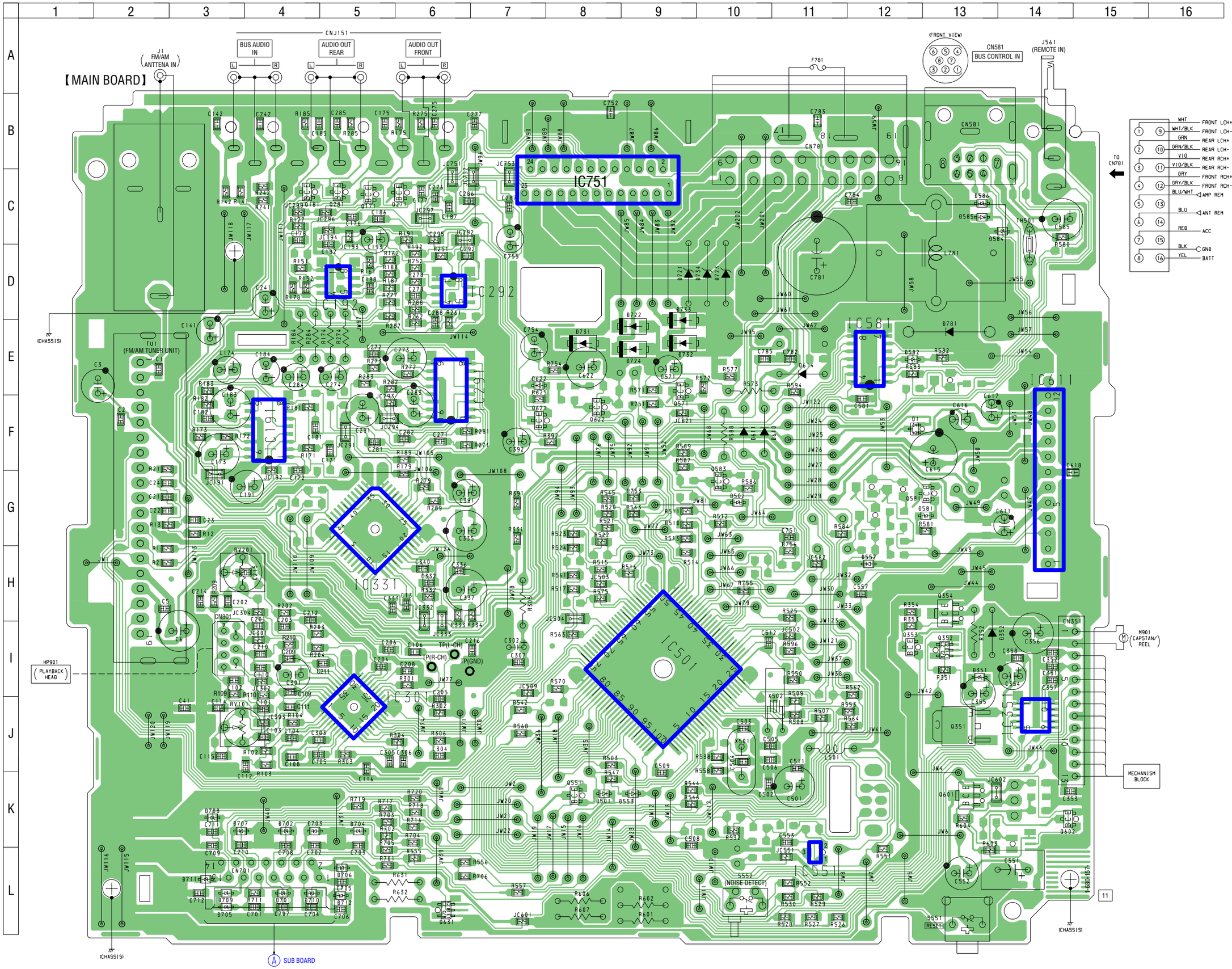


– KEY Board –

❸ IC501 ㉔ (OSC)



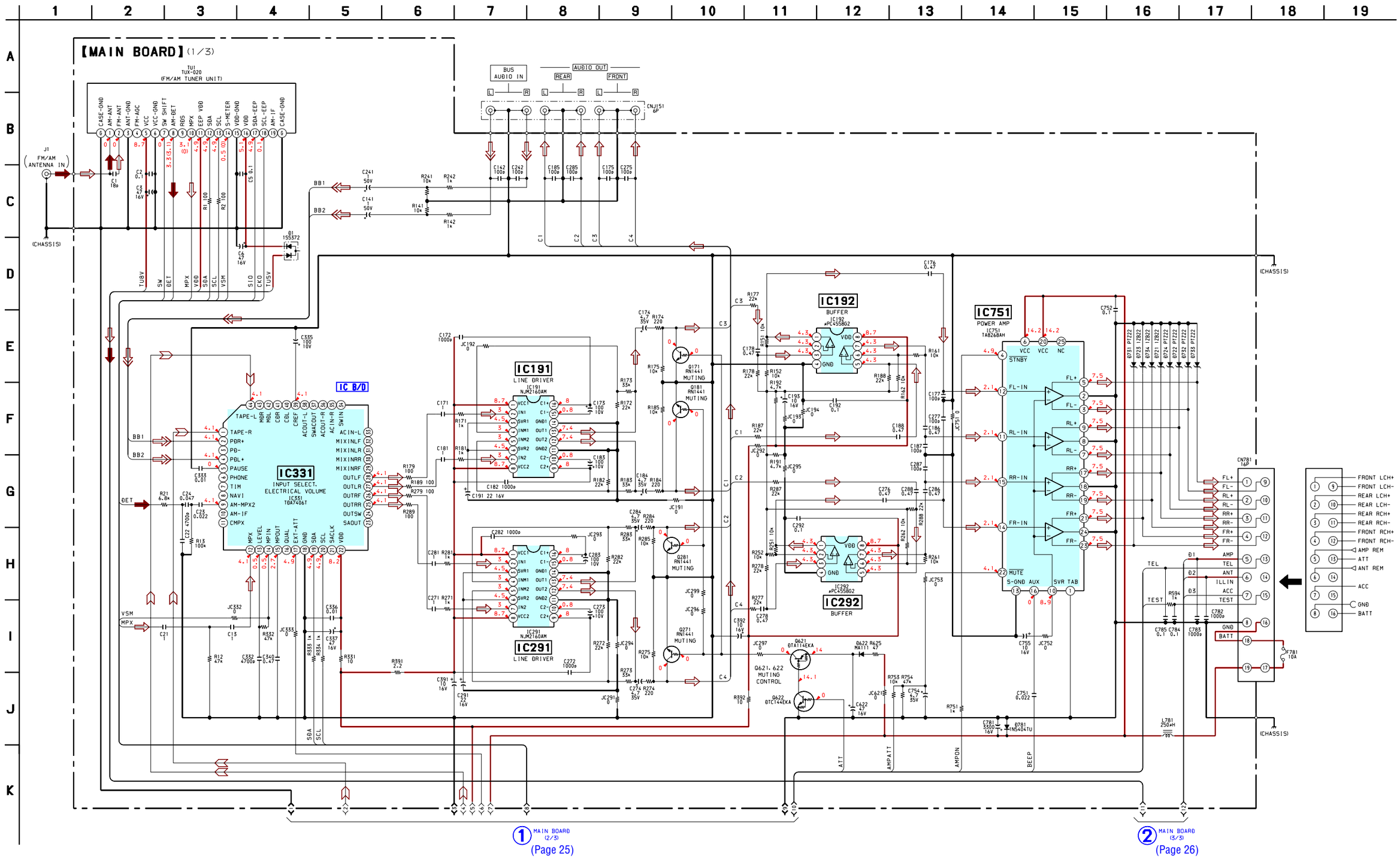
6-5. PRINTED WIRING BOARD – MAIN Board –



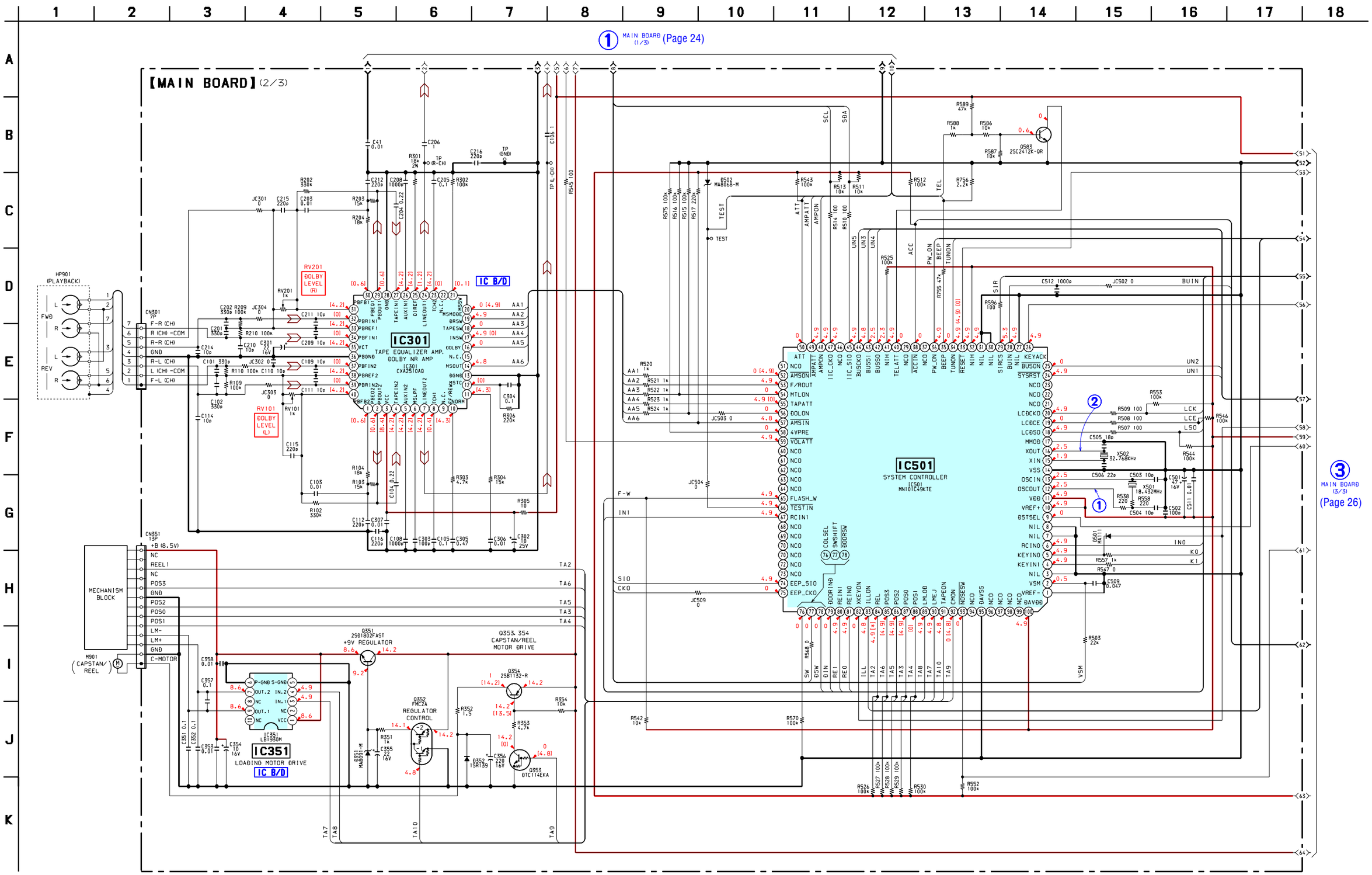
- **Semiconductor Location**

Ref. No.	Location
D1	F-12
D351	I-13
D352	I-13
D501	K-8
D502	G-10
D552	H-12
D553	K-9
D581	G-13
D582	E-12
D584	C-14
D585	C-13
D586	C-13
D610	F-10
D611	F-10
D614	E-11
D622	E-7
D701	L-4
D702	K-4
D703	K-4
D704	K-5
D705	L-3
D706	G-5
D707	K-3
D708	K-3
D709	L-3
D710	L-4
D711	L-3
D712	G-5
D721	D-9
D722	E-9
D723	D-10
D724	E-9
D731	E-8
D732	E-9
D733	E-9
D734	D-10
D781	E-13
IC191	F-4
IC192	D-5
IC291	E-6
IC292	D-6
IC301	J-5
IC331	G-5
IC351	J-14
IC501	I-9
IC551	L-11
IC581	E-12
IC611	G-14
IC751	C-8
Q171	C-5
Q181	C-4
Q271	C-6
Q281	C-5
Q351	J-13
Q352	I-13
Q353	I-12
Q354	H-13
Q551	K-8
Q571	E-9
Q581	G-13
Q583	G-10
Q601	K-13
Q602	K-14
Q621	F-7
Q622	F-8
Q631	L-6

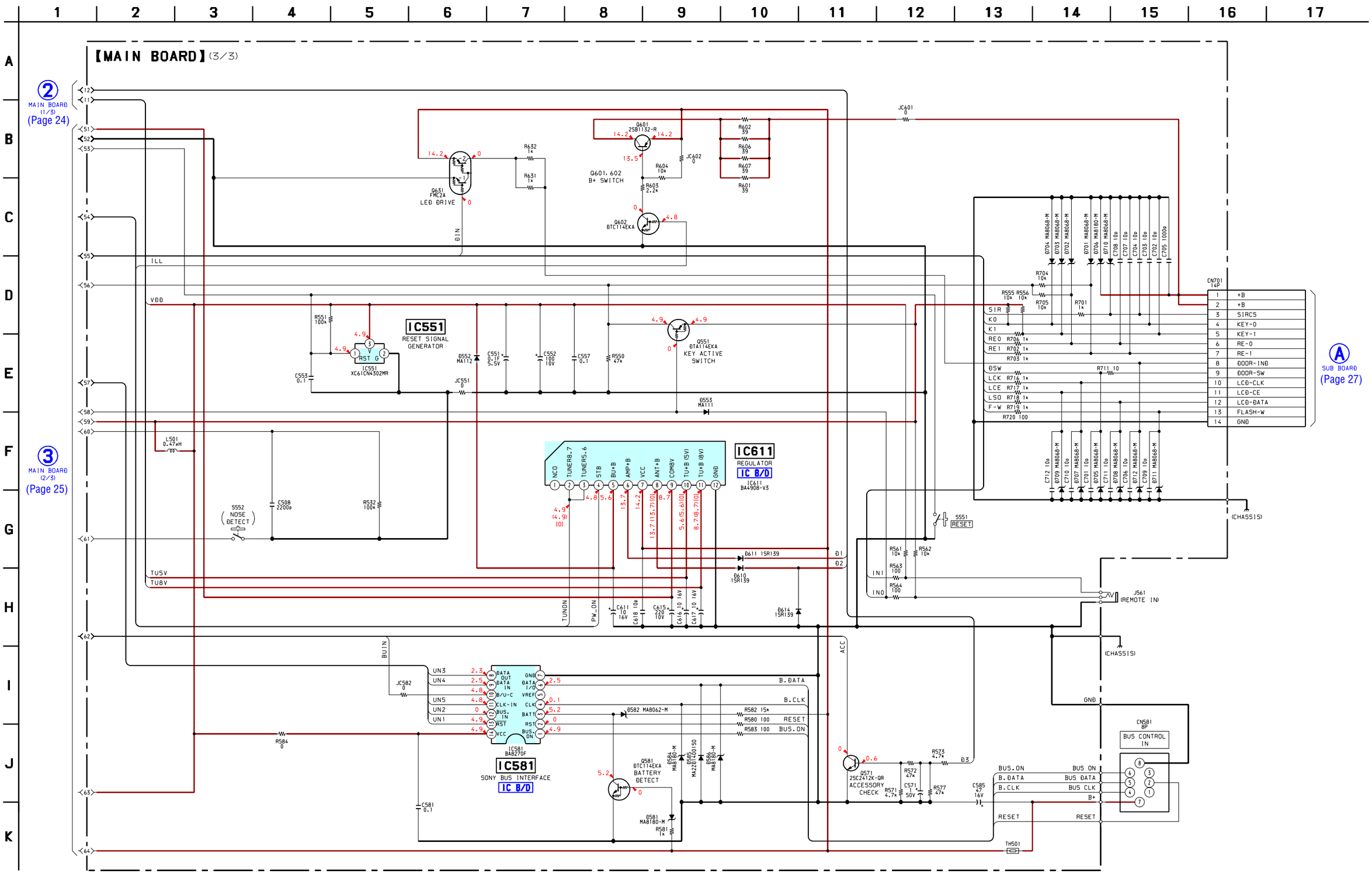
6-6. SCHEMATIC DIAGRAM – MAIN Board (1/3) – • See page 30 for IC Block Diagram.



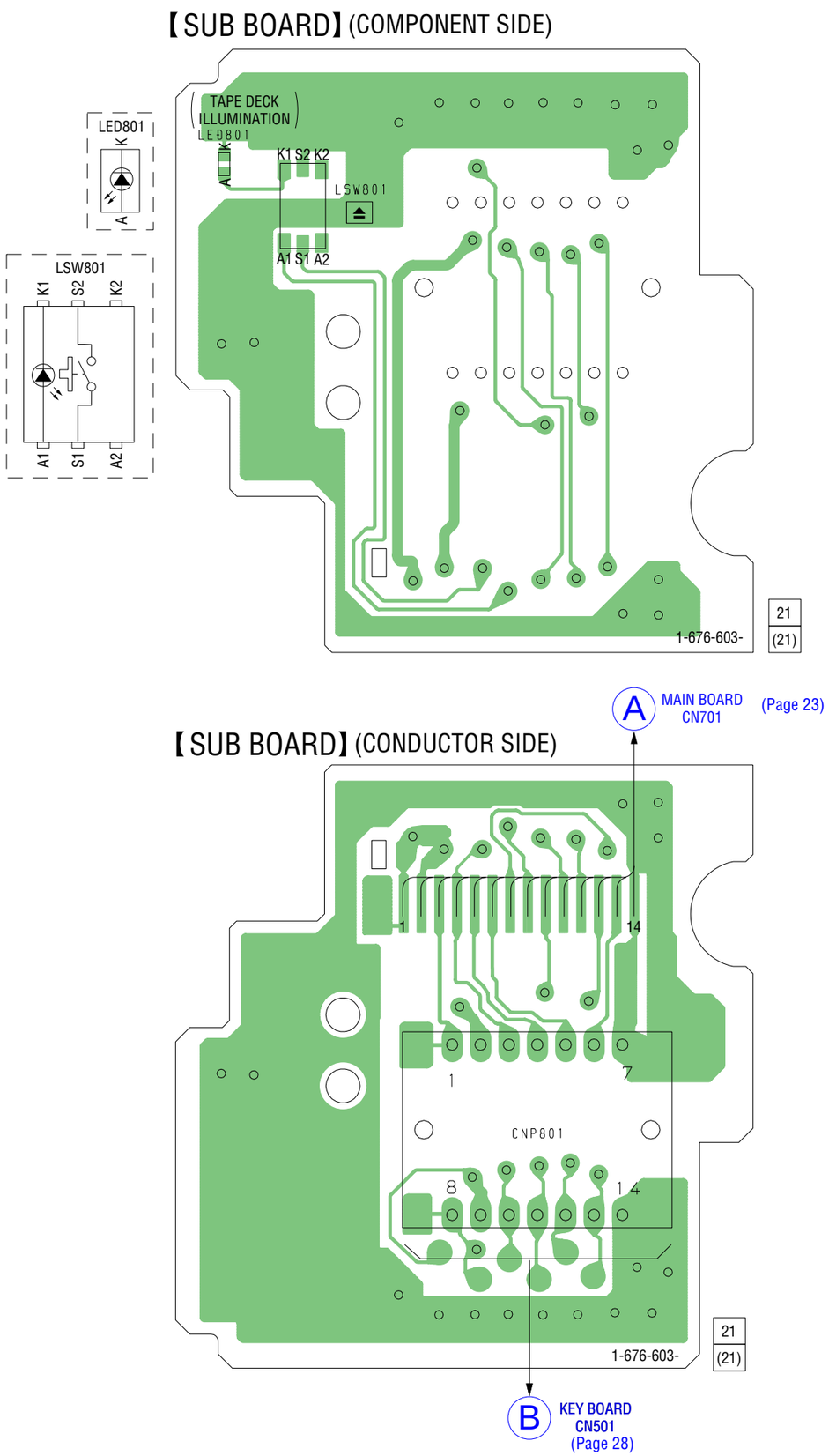
6-7. SCHEMATIC DIAGRAM – MAIN Board (2/3) – • See page 22 for Waveforms. • See page 30 for IC Block Diagrams.



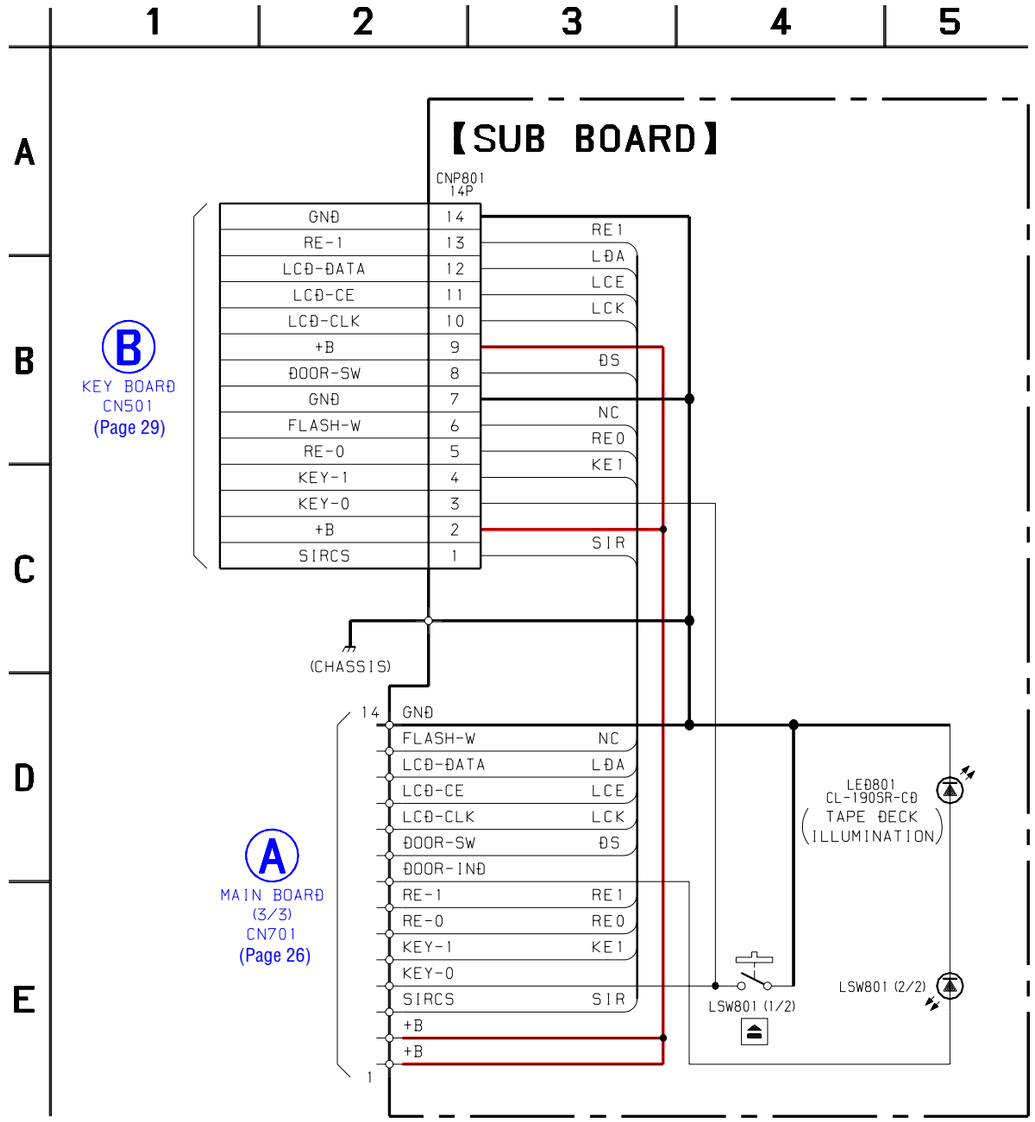
6-8. SCHEMATIC DIAGRAM – MAIN Board (3/3) – • See page 30 for IC Block Diagrams.



6-9. PRINTED WIRING BOARD – SUB Board –

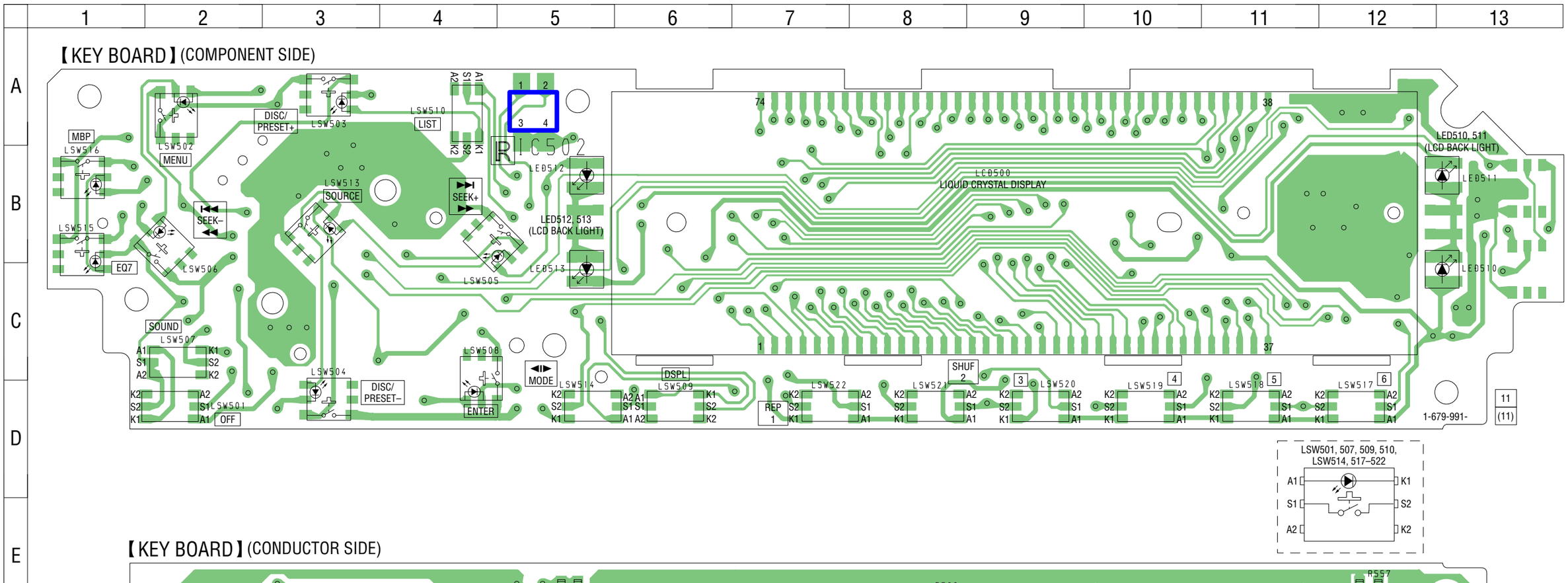


6-10. SCHEMATIC DIAGRAM – SUB Board –

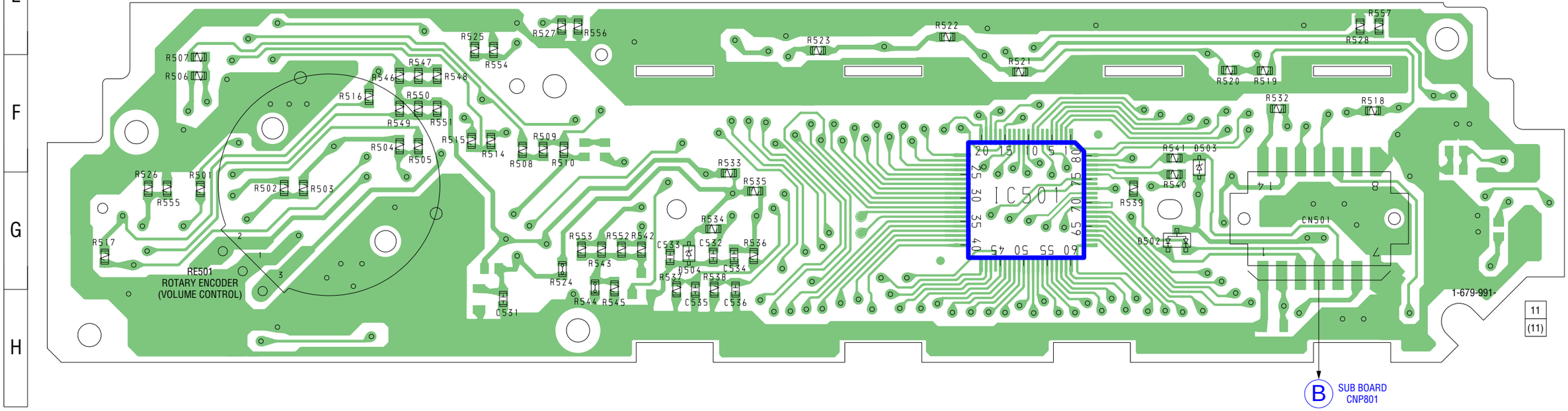


6-11. PRINTED WIRING BOARD – KEY Board –

【KEY BOARD】(COMPONENT SIDE)



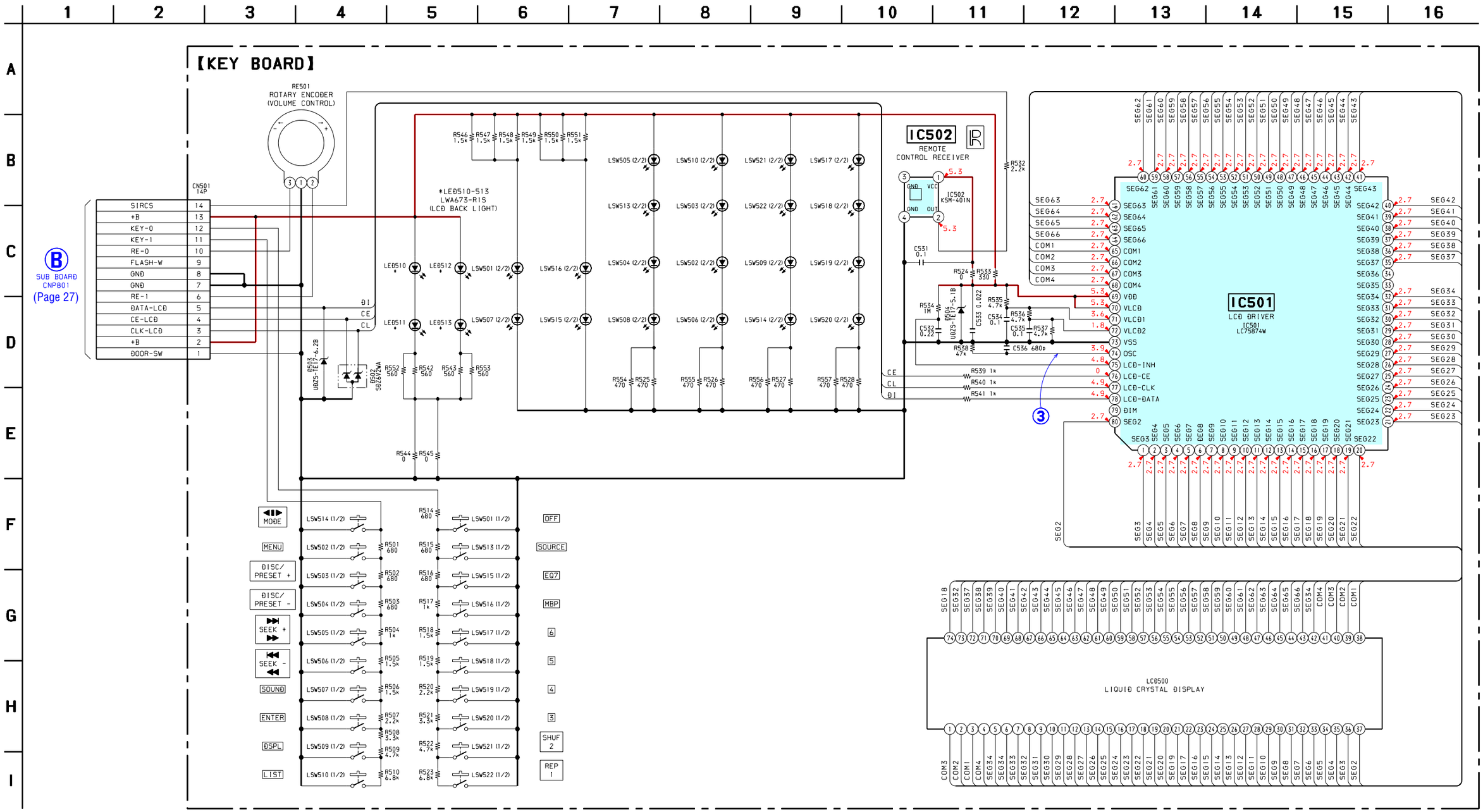
【KEY BOARD】(CONDUCTOR SIDE)



- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D501	H-11	IC502	A-5
D502	G-10		
D503	F-10	LED510	C-13
D504	G-6	LED511	B-13
		LED512	B-5
IC501	G-9	LED513	C-5

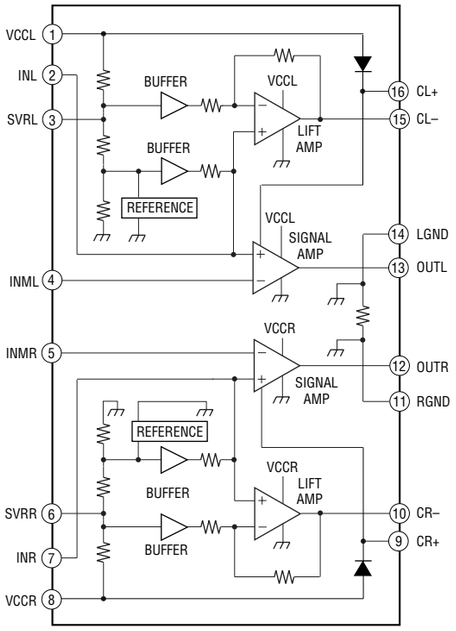
6-12. SCHEMATIC DIAGRAM – KEY Board – • See page 22 for Waveform.



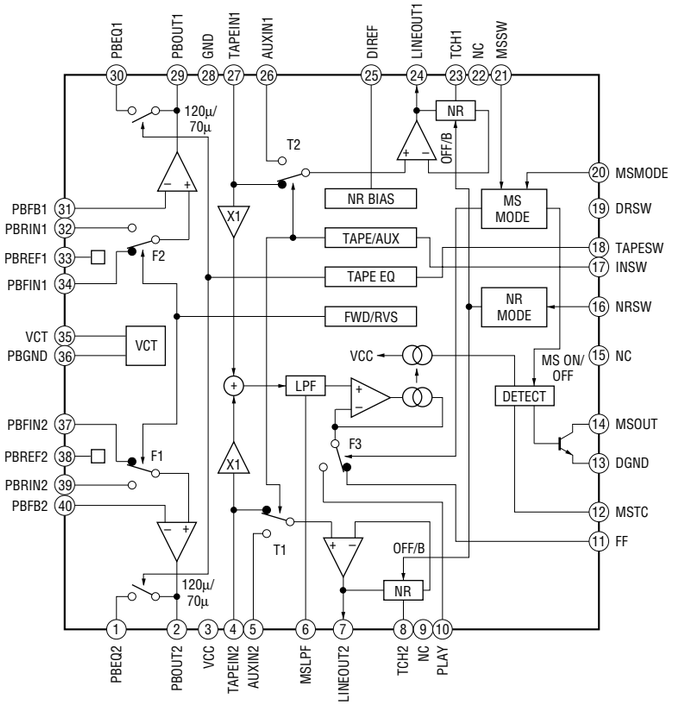
- **IC Block Diagrams**

– MAIN Board –

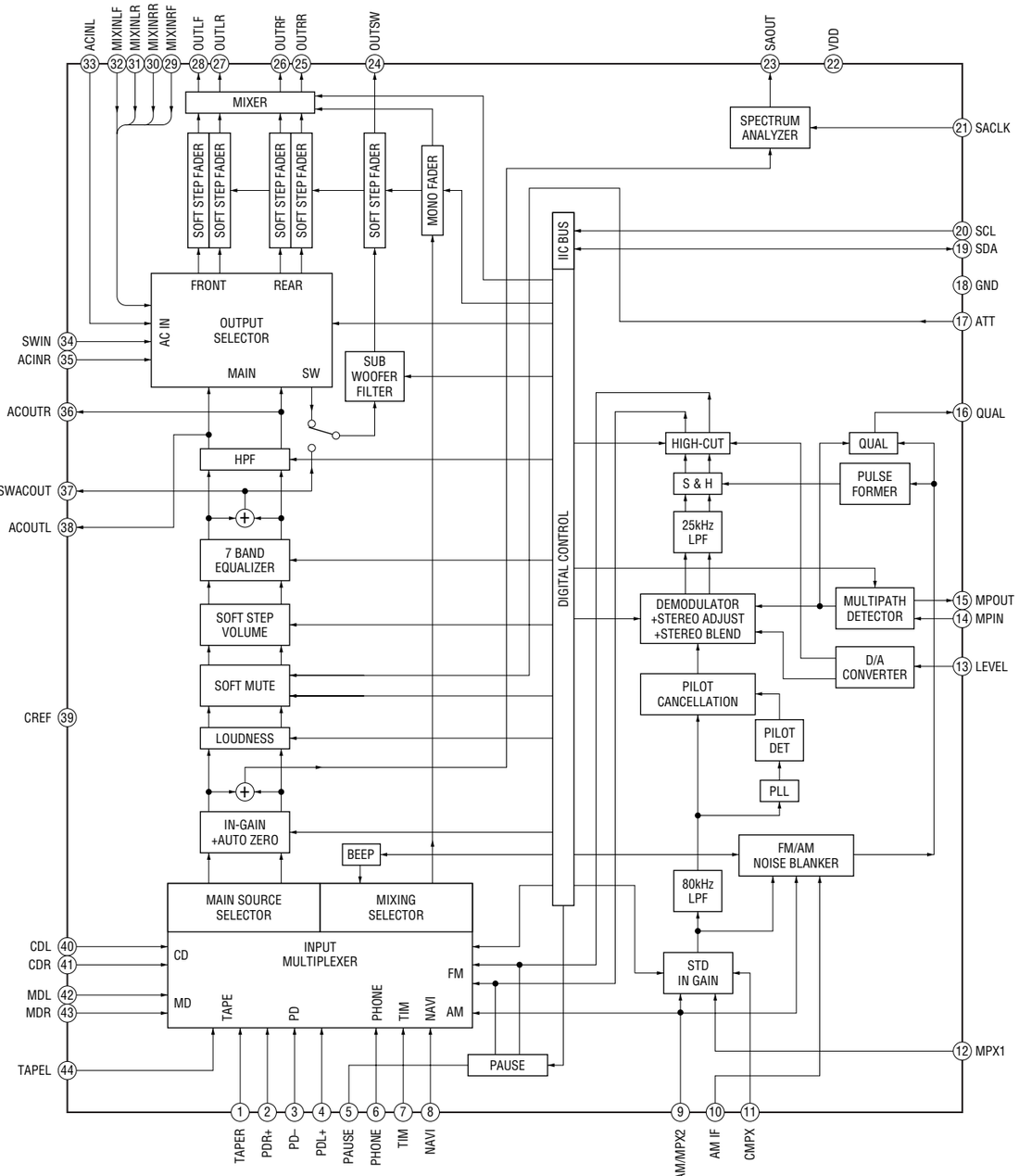
IC191, 291 NJM2160AM-TE2



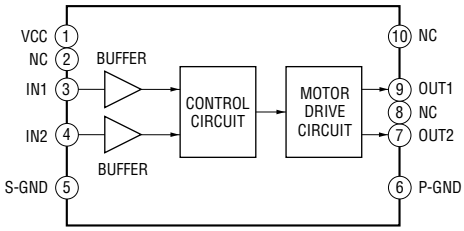
IC301 CXA2510AQ-T4



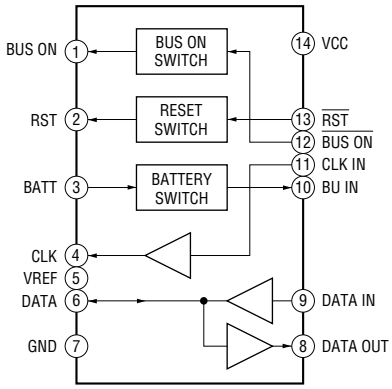
IC331 TDA7406T



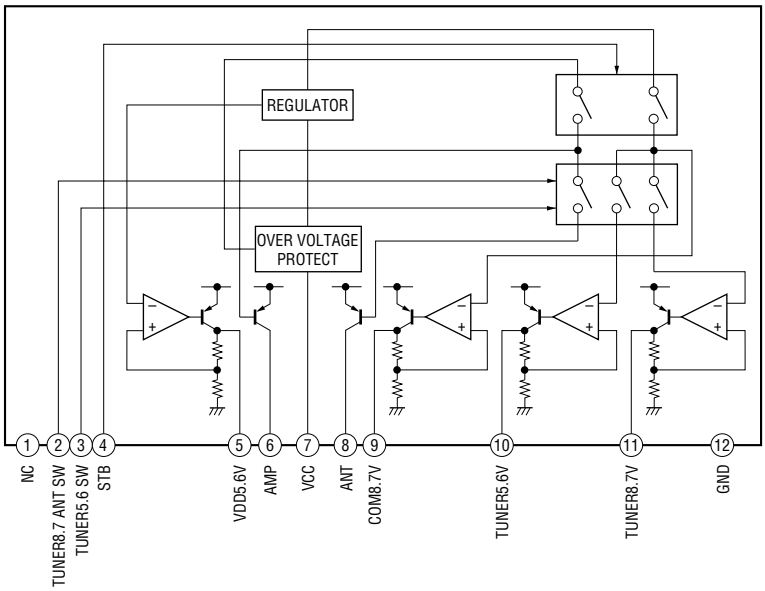
IC351 LB1930M-TLM



IC581 BA8270F-E2



IC611 BA4908-V3



6-13. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC501 MN101C49KTE (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	VREF–	I	Reference voltage (0V) input terminal (for A/D converter)
2	VSM	I	FM and AM signal meter voltage detection signal input from the FM/AM tuner unit (TU1) (A/D input)
3	NIL	I	Not used (fixed at "L")
4	KEYIN1	I	Key input terminal (A/D input) LSW502 to LSW510, LSW514 (MENU, DISC/PRESET+, DISC/PRESET–, ▶▶I SEEK+ ▶▶, I◀◀ SEEK– ◀◀, SOUND, ENTER, DSPL, LIST, MODE ◀II▶ keys input)
5	KEYIN0	I	Key input terminal (A/D input) LSW501, LSW513, LSW515 to LSW522 (OFF, SOURCE, EQ7, POS, 6, 5, 4, 3, SHUF 2, REP 1 keys input)
6	RCIN0	I	Rotary remote commander key input terminal (A/D input)
7, 8	NIL	I	Not used (fixed at "L")
9	DSTSEL	I	Destination setting terminal (A/D input) Fixed at center voltage in this set
10	VREF+	I	Reference voltage (+5V) input terminal (for A/D converter)
11	VDD	—	Power supply terminal (+5V)
12	OSCOUT	O	Main system clock output terminal (18.432 MHz)
13	OSCIN	I	Main system clock input terminal (18.432 MHz)
14	VSS	—	Ground terminal
15	XIN	I	Sub system clock input terminal (32.768 kHz)
16	XOUT	O	Sub system clock output terminal (32.768 kHz)
17	MMOD	I	Selection signal of memory mode input terminal "L":single chip mode (fixed at "L")
18	LCDSO	O	Serial data output to the liquid crystal display driver (IC501)
19	LCDCE	O	Chip enable signal output to the liquid crystal display driver (IC501) "H" active
20	LCDCKO	O	Serial data transfer clock signal output to the liquid crystal display driver (IC501)
21 to 23	NCO	O	Not used (open)
24	$\overline{\text{SYSRST}}$	O	Reset signal output to the SONY bus interface (IC581) "L": reset
25	$\overline{\text{BUSON}}$	O	Bus on/off control signal output to the SONY bus interface (IC581) "L": bus on
26	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of "H"
27	NIL	I	Not used (fixed at "L")
28	BUIN	I	Battery detection signal input from the SONY bus interface (IC581) "L" is input at low voltage
29	SIRCS	I	SIRCS remote control signal input terminal Not used (open)
30, 31	NIL	I	Not used (fixed at "L")
32	NIH	I	Not used (fixed at "H")
33	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC551) and reset switch (S551) "L": reset "L" is input for several 100 msec after power on, then it changes to "H"
34	TUNON	O	Tuner system power supply on/off control signal output "H": tuner power on
35	BEEP	O	Beep sound drive signal output to the power amplifier (IC751)
36	PW_ON	O	Main system power supply on/off control signal output "H": power on
37	NCO	O	Not used (open)
38	$\overline{\text{ACCIN}}$	I	Accessory detection signal input "L": accessory on
39	NCO	O	Not used (open)
40	TELATT	I	Telephone attenuate signal input At input of "H", the signal is attenuated by –20 dB
41	NIH	I	Not used (fixed at "H")
42	BUSSO	O	Serial data output to the SONY bus interface (IC581)
43	BUSSI	I	Serial data input from the SONY bus interface (IC581)

Pin No.	Pin Name	I/O	Description
44	BUSCKO	O	Serial data transfer clock signal output to the SONY bus interface (IC581)
45	IIC_SIO	I/O	Two-way data IIC bus with the FM/AM tuner unit (TU1), and electrical volume (IC331)
46	NCO	O	Not used (open)
47	IIC_CKO	O	IIC bus clock signal output to the FM/AM tuner unit (TU1), and electrical volume (IC331)
48	AMPON	O	Standby on/off control signal output to the power amplifier (IC751) "L": standby mode, "H": amplifier on
49	$\overline{\text{AMPATT}}$	O	Muting on/off control signal output to the power amplifier (IC751) "L": muting on
50	ATT	O	Audio line muting on/off control signal output "H": muting on
51	NCO	O	Not used (open)
52	$\overline{\text{AMSON}}$	O	Tape auto music sensor control signal output to the CXA2510AQ (IC301) "L": auto music sensor on
53	F/ROUT	O	Forward/reverse control signal output to the CXA2510AQ (IC301) "L": reverse direction, "H": forward direction
54	MTLON	O	METAL control in/out terminal At initial mode: valid/invalid selection input of METAL function (valid at "L" input) At normal mode: METAL on/off control signal output to the CXA2510AQ (IC301) (METAL on at "H" output)
55	TAPATT	O	Tape muting on/off control signal output to the CXA2510AQ (IC301) "H": muting on Active at ATA, FF/REW mode
56	DOLON	I/O	Dolby control in/out terminal At initial mode: valid/invalid selection input of dolby function (valid at "L" input) At normal mode: dolby on/off control signal output to the CXA2510AQ (IC301) (dolby on at "H" output)
57	$\overline{\text{AMSIN}}$	I	Whether a music is present or not from CXA2510AQ (IC301) is detected at auto music sensor "L": music is present, "H": music is not present
58	4VPRE	I	4V PREOUT setting terminal "L": 4V PREOUT on Fixed at "L" in this set
59	$\overline{\text{VOLATT}}$	O	Pre amplifier muting on/off control signal output to the electrical volume (IC331) "L": muting on
60 to 64	NCO	O	Not used (open)
65	FLASH_W	I	Internal flash memory data write mode detection signal input terminal "L": data write mode Not used (open)
66	$\overline{\text{TESTIN}}$	I	Setting terminal for the test mode "L": test mode, normally fixed at "H"
67	RCIN1	I	Rotary remote commander shift key input terminal "L": shift key on
68 to 73	NCO	O	Not used (open)
74	EEP_SIO	I/O	Two-way data bus for tuner EEPROM with the FM/AM tuner unit (TU1)
75	EEP_CKO	I/O	Two-way bus clock signal for tuner EEPROM with the FM/AM tuner unit (TU1)
76	COLSEL	I	Setting terminal for the illumination color "L": amber, "H": green Fixed at "L" in this set
77	SWSHIFT	O	VCO shift control signal output to the FM/AM tuner unit (TU1) for SW "L": EXCEPT SW, "H": SW
78	$\overline{\text{DOORSW}}$	I	Front panel open/close detection signal input "L" is input when the front panel is closed
79	DOORIND	O	LED drive signal output of the MD disc slot illumination and ⏏ indicator (LED810, LSW810) "H": LED on "H" is output to turn on the LED when front panel is opened
80, 81	REIN1, REIN0	I	Dial pulse input of the rotary encoder (RE501) (for VOLUME control)
82	XKEYON	O	A/D converter power control signal output terminal When the KEYACK (pin ㉖) that controls reference voltage power for key A/D conversion input is active, "L" is output from this terminal to enable the input
83	ILLON	O	Power on/off control signal output of the illumination LED and liquid crystal display driver (IC501) "H": power on

Pin No.	Pin Name	I/O	Description
84	REL	I	Rotation detection signal input from supply reel sensor and take-up reel sensor on the mechanism deck
85	POS3	I	Tape position (EJECT/FF/REW/REV/ FWD mode) detect input from the tape operation switch on the deck mechanism POS3: "L": REV and EJECT mode, "H": others mode POS2: "L": REW mode, "H": others mode POS0: "L": EJECT mode, "H": others mode POS1: "L": PLAY and FF in FWD mode, and REW in REV mode, "H": others mode
86	POS2	I	
87	POS0	I	
88	POS1	I	
89	LMLOD	O	Motor drive signal output to the loading motor drive (IC351) "H" active (For the loading direction and forward side operation) *1
90	LMEJ	O	Motor drive signal output to the loading motor drive (IC351) "H" active (For the eject direction and reverse side operation) *1
91	TAPEON	O	Power on/off control signal output of the loading motor drive (IC351) and capstan/reel motor (M901) "H": motor on
92	CMON	O	Capstan/reel motor (M901) drive signal output terminal "H": motor on
93	$\overline{\text{NOSESW}}$	I	Front panel block remove/attach detection signal input "L": front panel is attached, "H": front panel is removed
94	NCO	O	Not used (open)
95	DAVSS	—	Ground terminal (for D/A converter)
96 to 99	NCO	O	Not used (open)
100	DAVDD	—	Power supply terminal (+5V) (for D/A converter)

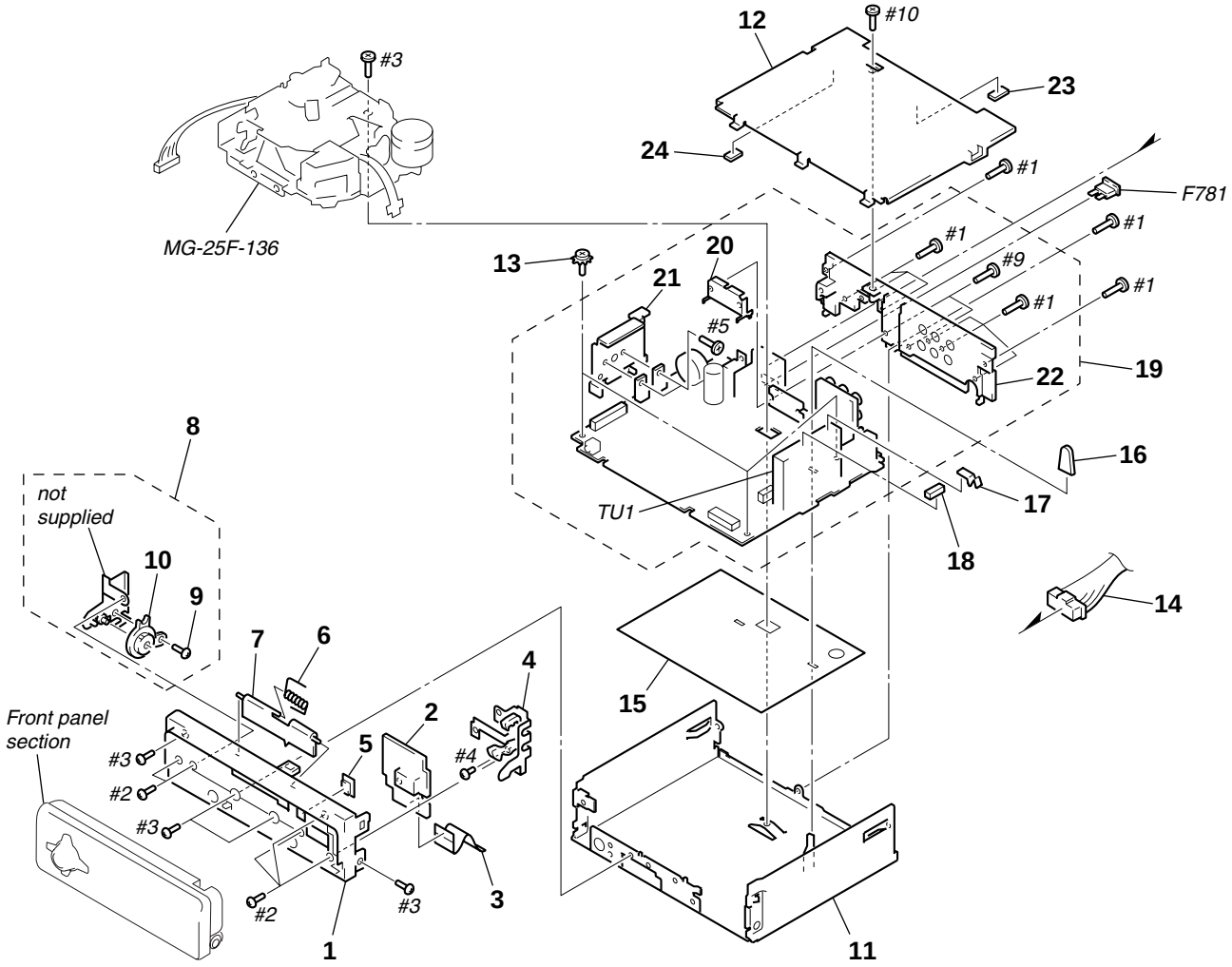
*1 Loading motor control

Mode / Terminal	STOP	LOADING/ FORWARD	EJECT/ REVERSE	BRAKE
LMLOD (pin ⑧⑨)	"L"	"H"	"L"	"H"
LMEJ (pin ⑨⓪)	"L"	"L"	"H"	"H"

SECTION 7
EXPLODED VIEWS

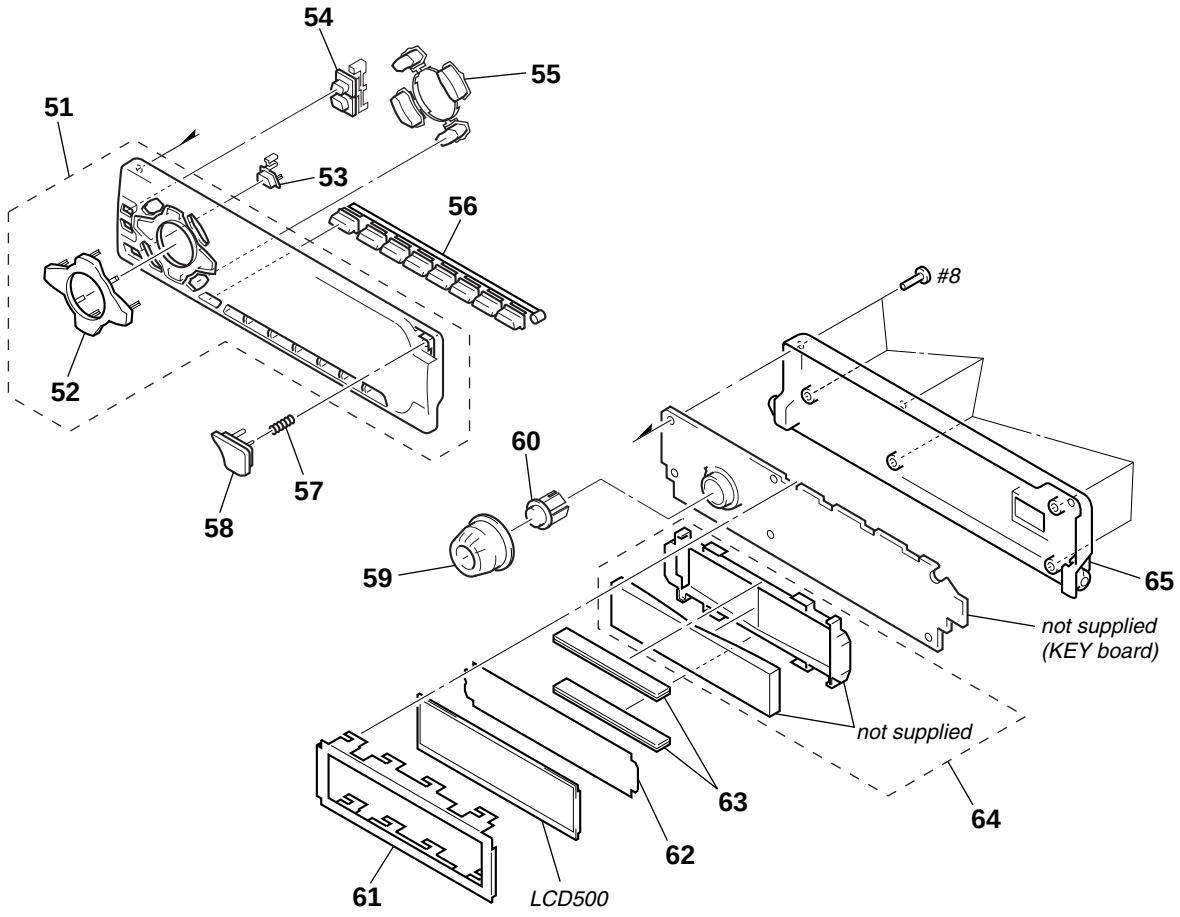
NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

7-1. GENERAL SECTION



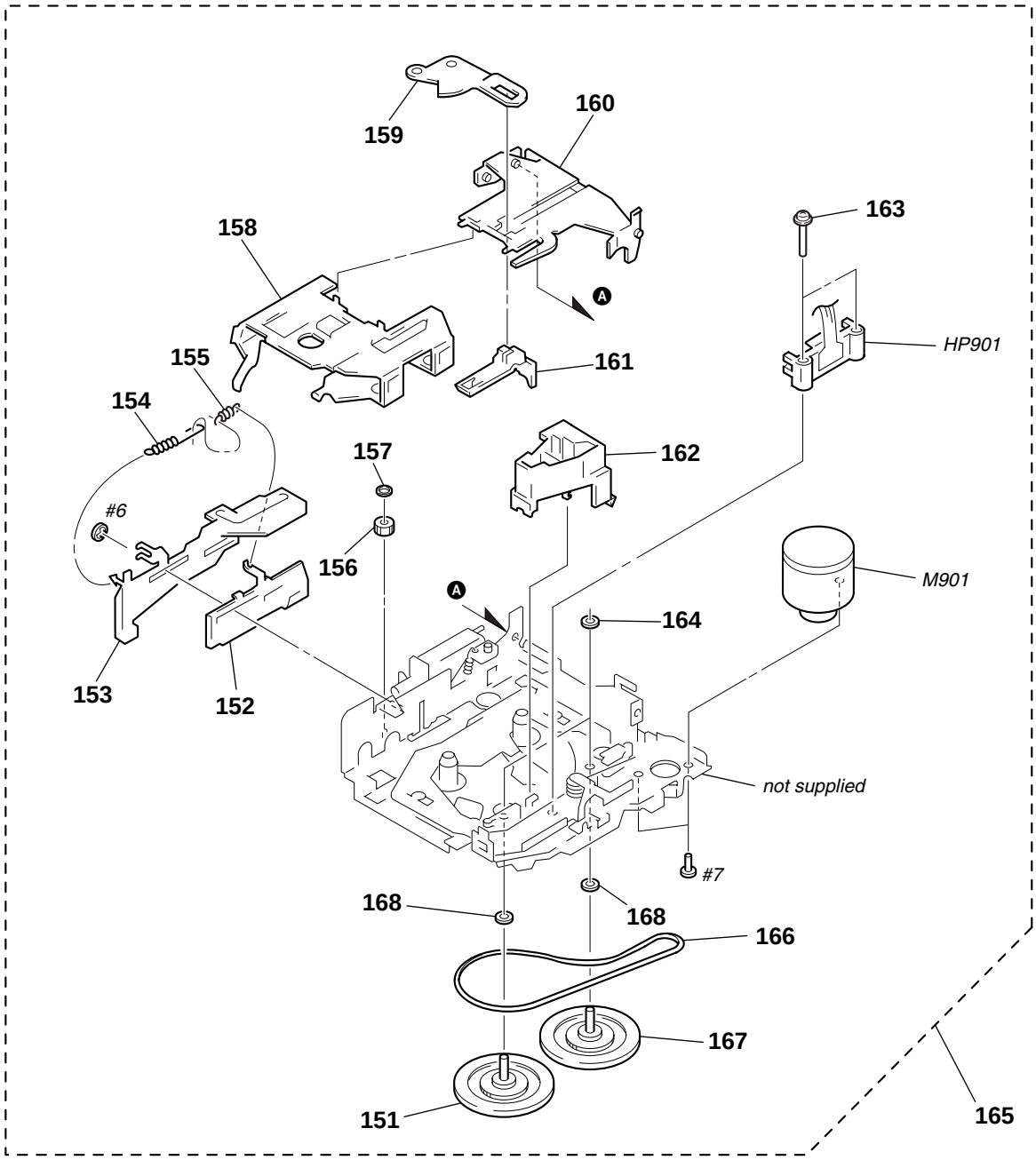
Ref. No.	Part No.	Description	Remark
1	X-3378-397-1	PANEL ASSY, SUB	
* 2	1-676-603-21	SUB BOARD	
3	1-792-195-11	CABLE, FLEXIBLE FLAT (14 CORE)	
4	X-3377-621-1	LOCK ASSY	
5	3-040-990-01	BUTTON (EJECT) (⏏)	
6	3-935-003-01	SPRING, TORSION	
7	3-027-437-11	DOOR, CASSETTE	
8	X-3376-699-1	GEAR ASSY	
9	3-713-786-51	SCREW +P 2X3	
10	3-030-909-01	DAMPER, OIL	
* 11	3-040-994-01	CHASSIS	
* 12	3-040-995-01	COVER	
13	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
14	1-792-194-21	CORD (WITH CONNECTOR) (POWER)	
* 15	3-045-828-01	INSULATED PLATE	
16	3-012-859-01	CAP (25), RUBBER	
* 17	3-045-878-01	PLATE (TU), GROUND	
* 18	3-045-877-01	CUSHION (TU)	
* 19	A-3326-826-A	MAIN BOARD, COMPLETE	
* 20	3-040-998-01	BRACKET (IC)	
* 21	3-041-262-01	HEAT SINK (REG/XR)	
* 22	3-040-996-21	HEAT SINK (2P)	
* 23	3-046-991-01	SPACER (COVER R)	
* 24	3-046-990-01	SPACER (COVER L)	
F781	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	
TU1	A-3282-061-A	TUNER UNIT (TUX-020)	

7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-3380-015-1	PANEL SUB ASSY	
52	3-224-293-11	BUTTON (CROSS) (DISC/PRESET+. ▶▶I SEEK + ▶▶. DISC/PRESET-. I◀◀ SEEK - ◀◀)	
53	3-224-298-01	BUTTON (OFF)	
54	3-224-296-01	BUTTON (EQ) (POS. EQ7)	
55	3-224-297-01	BUTTON (MANU) (MENU. LIST. ENTER. SOUND)	
56	3-224-299-01	BUTTON (1-6) (MODE. DSPL. 1. 2. 3. 4. 5. 6)	
57	3-038-318-01	SPRING (RELEASE)	
58	3-224-300-11	BUTTON (OPEN)	
59	3-224-292-11	KNOB (VOL)	
60	3-224-295-01	BUTTON (SOURCE)	
* 61	3-224-306-01	PLATE (LCD), GROUND	
* 62	3-224-307-01	SHEET (DIFFUSION)	
63	1-694-787-11	CONDUCTIVE BOARD, CONNECTION	
* 64	X-3379-981-1	HOLDER (LCD) ASSY	
65	X-3379-982-1	PANEL ASSY, FRONT BACK	
LCD500	1-804-294-11	DISPLAY PANEL, LIQUID CRYSTAL	

7-3. MECHANISM DECK SECTION (MG-25F-136)



Ref. No.	Part No.	Description	Remark
151	A-3291-667-A	CLUTCH (FR) ASSY	
* 152	3-019-130-01	LEVER (LDG-A)	
* 153	3-019-131-01	LEVER (LDG-B)	
154	3-020-539-01	SPRING (LD-1), TENSION	
155	3-020-540-01	SPRING (LD-2), TENSION	
156	3-020-542-01	GEAR (LOADING FT)	
157	3-341-753-11	WASHER, POLYETHYLENE	
158	3-020-533-01	HOUSING	
* 159	3-020-532-01	ARM (SUCTION)	
160	3-020-534-01	HANGER	

Ref. No.	Part No.	Description	Remark
161	3-933-346-01	CATCHER	
162	3-933-344-01	GUIDE (C)	
163	3-014-798-01	SCREW (HEAD), SPECIAL	
164	3-364-151-01	WASHER	
165	A-3220-610-A	MECHANISM DECK ASSY	
166	3-017-302-01	BELT (25)	
167	3-026-636-01	FLYWHEEL (F)	
168	3-701-437-21	WASHER	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

SECTION 8
ELECTRICAL PARTS LIST

KEY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
*	3-224-306-01	PLATE (LCD), GROUND			
*	3-224-307-01	SHEET (DIFFUSION)			
		< CAPACITOR >			
C531	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C532	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C533	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C534	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C535	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C536	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
		< CONNECTOR >			
CN501	1-794-065-12	PLUG, CONNECTOR 14P			
		< DIODE >			
D502	8-719-068-68	DIODE SDZ6V2WA			
D503	8-719-069-56	DIODE UDZS-TE17-6.2B			
D504	8-719-069-54	DIODE UDZS-TE17-5.1B			
		< IC >			
IC501	8-759-826-21	IC LC75874W			
IC502	8-749-017-35	IC KSM-401N			
		< LIQUID CRYSTAL DISPLAY >			
LCD500	1-804-294-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< LED >			
LED510	8-719-078-19	LED LWA673-R1S2*1 (LCD BACK LIGHT)			
LED511	8-719-078-19	LED LWA673-R1S2*1 (LCD BACK LIGHT)			
LED512	8-719-078-19	LED LWA673-R1S2*1 (LCD BACK LIGHT)			
LED513	8-719-078-19	LED LWA673-R1S2*1 (LCD BACK LIGHT)			
		< SWITCH >			
LSW501	1-771-883-11	SWITCH, TACTILE (WITH LED) (OFF)			
LSW502	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (MENU)			
LSW503	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (DICS/PRESET +)			
LSW504	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (DICS/PRESET –)			
LSW505	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (▶▶I SEEK + ▶▶)			
LSW506	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (I◀◀ SEEK – ◀◀)			
LSW507	1-771-883-11	SWITCH, TACTILE (WITH LED) (SOUND)			
LSW508	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (ENTER)			
LSW509	1-771-883-11	SWITCH, TACTILE (WITH LED) (DSPL)			
LSW510	1-771-883-11	SWITCH, TACTILE (WITH LED) (LIST)			
LSW513	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SOURCE)			
LSW514	1-771-883-11	SWITCH, TACTILE (WITH LED) (◀I▶ MODE)			
LSW515	1-771-500-21	SWITCH, KEYBOARD (WITH LED) (EQ7)			
LSW516	1-771-500-21	SWITCH, KEYBOARD (WITH LED) (MBP)			
LSW517	1-771-883-11	SWITCH, TACTILE (WITH LED) (6)			
LSW518	1-771-883-11	SWITCH, TACTILE (WITH LED) (5)			
LSW519	1-771-883-11	SWITCH, TACTILE (WITH LED) (4)			
LSW520	1-771-883-11	SWITCH, TACTILE (WITH LED) (3)			
LSW521	1-771-883-11	SWITCH, TACTILE (WITH LED) (SHUF 2)			
LSW522	1-771-883-11	SWITCH, TACTILE (WITH LED) (REP 1)			
		< RESISTOR >			
R501	1-216-819-11	METAL CHIP	680	5%	1/16W
R502	1-216-819-11	METAL CHIP	680	5%	1/16W
R503	1-216-819-11	METAL CHIP	680	5%	1/16W
R504	1-216-821-11	METAL CHIP	1K	5%	1/16W
R505	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R506	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R507	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R508	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R509	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R510	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R514	1-216-819-11	METAL CHIP	680	5%	1/16W
R515	1-216-819-11	METAL CHIP	680	5%	1/16W
R516	1-216-819-11	METAL CHIP	680	5%	1/16W
R517	1-216-821-11	METAL CHIP	1K	5%	1/16W
R518	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R519	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R520	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R521	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R522	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R523	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R524	1-216-864-11	SHORT	0		
R525	1-216-817-11	METAL CHIP	470	5%	1/16W
R526	1-216-817-11	METAL CHIP	470	5%	1/16W
R527	1-216-817-11	METAL CHIP	470	5%	1/16W
R528	1-216-817-11	METAL CHIP	470	5%	1/16W

KEY **MAIN**

Ref. No.	Part No.	Description			Remark
R532	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R533	1-216-815-11	METAL CHIP	330	5%	1/16W
R534	1-216-857-11	METAL CHIP	1M	5%	1/16W
R535	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R536	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R537	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R538	1-216-841-11	METAL CHIP	47K	5%	1/16W
R539	1-216-821-11	METAL CHIP	1K	5%	1/16W
R540	1-216-821-11	METAL CHIP	1K	5%	1/16W
R541	1-216-821-11	METAL CHIP	1K	5%	1/16W
R542	1-216-818-11	METAL CHIP	560	5%	1/16W
R543	1-216-818-11	METAL CHIP	560	5%	1/16W
R544	1-216-864-11	SHORT	0		
R545	1-216-864-11	SHORT	0		
R546	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R547	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R548	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R549	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R550	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R551	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R552	1-216-818-11	METAL CHIP	560	5%	1/16W
R553	1-216-818-11	METAL CHIP	560	5%	1/16W
R554	1-216-817-11	METAL CHIP	470	5%	1/16W
R555	1-216-817-11	METAL CHIP	470	5%	1/16W
R556	1-216-817-11	METAL CHIP	470	5%	1/16W
R557	1-216-817-11	METAL CHIP	470	5%	1/16W
		< ROTARY ENCODER >			
RE501	1-418-818-21	ENCODER, ROTARY (VOLUME CONTROL)			
**********					
*	A-3326-826-A	MAIN BOARD, COMPLETE			
		**********			
*	3-040-996-22	HEAT SINK (2P)			
*	3-040-998-01	BRACKET (IC)			
*	3-041-262-01	HEAT SINK (REG/XR)			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< CAPACITOR >			
C1	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C2	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3	1-104-664-11	ELECT	47uF	20%	16V
C5	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6	1-124-589-11	ELECT	47uF	20%	16V
C13	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C21	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C22	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C23	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C24	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C41	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C101	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C102	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C103	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C104	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C105	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description			Remark
C106	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C108	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C109	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C110	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C111	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C112	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C114	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C115	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C116	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C141	1-126-160-11	ELECT	1uF	20%	50V
C142	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C171	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C172	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C173	1-124-584-00	ELECT	100uF	20%	10V
C174	1-124-259-11	ELECT	4.7uF	20%	35V
C175	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C176	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C177	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C178	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C181	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C182	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C183	1-124-584-00	ELECT	100uF	20%	10V
C184	1-124-259-11	ELECT	4.7uF	20%	35V
C185	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C186	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C187	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C188	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C191	1-124-234-00	ELECT	22uF	20%	16V
C192	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C193	1-124-233-11	ELECT	10uF	20%	16V
C201	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C202	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C203	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C204	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C205	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C206	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C208	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C209	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C210	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C211	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C212	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C214	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C215	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C216	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C241	1-126-160-11	ELECT	1uF	20%	50V
C242	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C271	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C272	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C273	1-124-584-00	ELECT	100uF	20%	10V
C274	1-124-259-11	ELECT	4.7uF	20%	35V
C275	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C276	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C277	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C278	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C281	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C282	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C283	1-124-584-00	ELECT	100uF	20%	10V
C284	1-124-259-11	ELECT	4.7uF	20%	35V

MAIN

Ref. No.	Part No.	Description			Remark
C285	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C286	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C287	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C288	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C291	1-124-234-00	ELECT	22uF	20%	16V
C292	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C301	1-124-234-00	ELECT	22uF	20%	16V
C302	1-131-353-00	TANTALUM	10uF	10%	35V
C303	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C304	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C305	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C332	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C333	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C335	1-124-584-00	ELECT	100uF	20%	10V
C336	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C337	1-124-589-11	ELECT	47uF	20%	16V
C340	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C351	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C352	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C353	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C354	1-124-233-11	ELECT	10uF	20%	16V
C355	1-124-234-00	ELECT	22uF	20%	16V
C356	1-126-934-11	ELECT	220uF	20%	16V
C357	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C358	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C391	1-124-233-11	ELECT	10uF	20%	16V
C392	1-124-233-11	ELECT	10uF	20%	16V
C501	1-124-589-11	ELECT	47uF	20%	16V
C502	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C503	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C504	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C505	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C506	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C508	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C509	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C511	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C551	1-125-710-11	DOUBLE LAYER	0.1F		5.5V
C552	1-104-665-11	ELECT	100uF	20%	10V
C553	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C557	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C571	1-126-160-11	ELECT	1uF	20%	50V
C581	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C585	1-124-589-11	ELECT	47uF	20%	16V
C611	1-126-157-11	ELECT	10uF	20%	16V
C615	1-126-176-11	ELECT	220uF	20%	10V
C616	1-126-157-11	ELECT	10uF	20%	16V
C617	1-126-157-11	ELECT	10uF	20%	16V
C618	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C622	1-124-589-11	ELECT	47uF	20%	16V
C701	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C702	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C703	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C704	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C705	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
C706	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C707	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C708	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C709	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C710	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C711	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C712	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C751	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C752	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C754	1-124-259-11	ELECT	4.7uF	20%	35V
C755	1-124-233-11	ELECT	10uF	20%	16V
C781	1-107-885-31	ELECT	3300uF	20%	16V
C782	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C783	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C784	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C785	1-165-319-11	CERAMIC CHIP	0.1uF		50V
		< CONNECTOR >			
CN301	1-785-694-11	CONNECTOR, FFC/FPC 7P			
* CN351	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P			
CN581	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
CN701	1-784-456-11	CONNECTOR, FFC/FPC 14P			
CN781	1-774-701-11	PIN, CONNECTOR 16P			
		< JACK >			
CNJ151	1-774-700-11	JACK, PIN 6P (AUDIO OUT FRONT/REAR, BUS AUDIO IN)			
		< DIODE >			
D1	8-719-056-65	DIODE	1SS372-TE85L		
D351	8-719-422-97	DIODE	MA8091-M-TX		
D352	8-719-970-02	DIODE	1SR139-400T-32		
D501	8-719-073-01	DIODE	MA111-TX		
D502	8-719-977-12	DIODE	MA8068-M-TX		
D552	8-719-067-56	DIODE	MA112-TX		
D553	8-719-073-01	DIODE	MA111-TX		
D581	8-719-057-80	DIODE	MA8180-M-TX		
D582	8-719-422-64	DIODE	MA8062-M-TX		
D584	8-719-057-80	DIODE	MA8180-M-TX		
D585	8-719-072-70	DIODE	MA2ZD14001S0		
D586	8-719-057-80	DIODE	MA8180-M-TX		
D610	8-719-970-02	DIODE	1SR139-400T-32		
D611	8-719-970-02	DIODE	1SR139-400T-32		
D614	8-719-970-02	DIODE	1SR139-400T-32		
D622	8-719-073-01	DIODE	MA111-TX		
D701	8-719-977-12	DIODE	MA8068-M-TX		
D702	8-719-977-12	DIODE	MA8068-M-TX		
D703	8-719-977-12	DIODE	MA8068-M-TX		
D704	8-719-977-12	DIODE	MA8068-M-TX		
D705	8-719-977-12	DIODE	MA8068-M-TX		
D706	8-719-057-80	DIODE	MA8180-M-TX		
D707	8-719-977-12	DIODE	MA8068-M-TX		
D708	8-719-977-12	DIODE	MA8068-M-TX		
D709	8-719-977-12	DIODE	MA8068-M-TX		
D710	8-719-977-12	DIODE	MA8068-M-TX		
D711	8-719-977-12	DIODE	MA8068-M-TX		
D712	8-719-977-12	DIODE	MA8068-M-TX		
D721	8-719-079-42	DIODE	1ZB22 (TPA3)		

MAIN

Ref. No.	Part No.	Description	Remark
D722	8-719-079-55	DIODE PTZ-TE25-22	
D723	8-719-079-42	DIODE 1ZB22 (TPA3)	
D724	8-719-079-55	DIODE PTZ-TE25-22	
D731	8-719-079-55	DIODE PTZ-TE25-22	
D732	8-719-079-55	DIODE PTZ-TE25-22	
D733	8-719-079-55	DIODE PTZ-TE25-22	
D734	8-719-079-42	DIODE 1ZB22 (TPA3)	
D781	8-719-049-38	DIODE 1N5404TU	
		< IC >	
IC191	8-759-593-97	IC NJM2160AM-TE2	
IC192	8-759-100-96	IC uPC4558G2-E1	
IC291	8-759-593-97	IC NJM2160AM-TE2	
IC292	8-759-100-96	IC uPC4558G2-E1	
IC301	8-752-079-79	IC CXA2510AQ-T4	
IC331	8-759-827-13	IC TDA7406T	
IC351	8-759-527-33	IC LB1930M-TLM	
IC501	8-759-828-84	IC MN101C49KTE	
IC551	8-759-682-69	IC XC61CN4302MR	
IC581	8-759-449-89	IC BA8270F-E2	
IC611	8-759-661-47	IC BA4908-V3	
IC751	8-759-827-14	IC TA8268AH	
		< JACK >	
J1	1-815-185-11	JACK (ANT) (FM/AM ANTENNA IN)	
J561	1-566-822-41	JACK (REMOTE IN)	
		< SHORT >	
JC191	1-216-296-11	SHORT 0	
JC192	1-216-295-11	SHORT 0	
JC193	1-216-295-11	SHORT 0	
JC194	1-216-295-11	SHORT 0	
JC291	1-216-296-11	SHORT 0	
JC292	1-216-296-11	SHORT 0	
JC293	1-216-295-11	SHORT 0	
JC294	1-216-296-11	SHORT 0	
JC295	1-216-295-11	SHORT 0	
JC296	1-216-295-11	SHORT 0	
JC297	1-216-296-11	SHORT 0	
JC299	1-216-295-11	SHORT 0	
JC301	1-216-295-11	SHORT 0	
JC302	1-216-295-11	SHORT 0	
JC303	1-216-295-11	SHORT 0	
JC304	1-216-295-11	SHORT 0	
JC332	1-216-296-11	SHORT 0	
JC333	1-216-296-11	SHORT 0	
JC502	1-216-295-11	SHORT 0	
JC503	1-216-295-11	SHORT 0	
JC504	1-216-296-11	SHORT 0	
JC509	1-216-295-11	SHORT 0	
JC551	1-216-295-11	SHORT 0	
JC582	1-216-295-11	SHORT 0	
JC601	1-216-295-11	SHORT 0	
JC602	1-216-296-11	SHORT 0	
JC621	1-216-295-11	SHORT 0	
JC751	1-216-296-11	SHORT 0	
JC752	1-216-296-11	SHORT 0	
JC753	1-216-296-11	SHORT 0	
		< COIL >	
L501	1-410-750-41	INDUCTOR 0.47uH	
L781	1-419-476-11	INDUCTOR 250uH	
		< TRANSISTOR >	
Q171	8-729-021-95	TRANSISTOR RN1441-A (TE85L)	
Q181	8-729-021-95	TRANSISTOR RN1441-A (TE85L)	
Q271	8-729-021-95	TRANSISTOR RN1441-A (TE85L)	
Q281	8-729-021-95	TRANSISTOR RN1441-A (TE85L)	
Q351	8-729-015-11	TRANSISTOR 2SD1802FAST-TL	
Q352	8-729-047-76	TRANSISTOR FMC2A-T148	
Q353	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q354	8-729-106-60	TRANSISTOR 2SB1132-T100-R	
Q551	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q571	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q581	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q583	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
Q601	8-729-106-60	TRANSISTOR 2SB1132-T100-R	
Q602	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q621	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q622	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q631	8-729-047-76	TRANSISTOR FMC2A-T148	
		< RESISTOR >	
R1	1-216-809-11	METAL CHIP 100 5% 1/16W	
R2	1-216-809-11	METAL CHIP 100 5% 1/16W	
R12	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R13	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R21	1-216-831-11	METAL CHIP 6.8K 5% 1/16W	
R102	1-216-851-11	METAL CHIP 330K 5% 1/16W	
R103	1-216-835-11	METAL CHIP 15K 5% 1/16W	
R104	1-216-836-11	METAL CHIP 18K 5% 1/16W	
R109	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R110	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R141	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R142	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R151	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R152	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R161	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R162	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R171	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R172	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R173	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R174	1-249-409-11	CARBON 220 5% 1/4W	
R175	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R177	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R178	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R179	1-216-809-11	METAL CHIP 100 5% 1/16W	
R181	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R182	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R183	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R184	1-249-409-11	CARBON 220 5% 1/4W	
R185	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R187	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R188	1-216-837-11	METAL CHIP 22K 5% 1/16W	

MAIN

Ref. No.	Part No.	Description			Remark
R189	1-216-809-11	METAL CHIP	100	5%	1/16W
R191	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R192	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R202	1-216-851-11	METAL CHIP	330K	5%	1/16W
R203	1-216-835-11	METAL CHIP	15K	5%	1/16W
R204	1-216-836-11	METAL CHIP	18K	5%	1/16W
R209	1-216-845-11	METAL CHIP	100K	5%	1/16W
R210	1-216-845-11	METAL CHIP	100K	5%	1/16W
R241	1-216-833-11	METAL CHIP	10K	5%	1/16W
R242	1-216-821-11	METAL CHIP	1K	5%	1/16W
R251	1-216-833-11	METAL CHIP	10K	5%	1/16W
R252	1-216-833-11	METAL CHIP	10K	5%	1/16W
R261	1-216-833-11	METAL CHIP	10K	5%	1/16W
R262	1-216-833-11	METAL CHIP	10K	5%	1/16W
R271	1-216-821-11	METAL CHIP	1K	5%	1/16W
R272	1-216-837-11	METAL CHIP	22K	5%	1/16W
R273	1-216-839-11	METAL CHIP	33K	5%	1/16W
R274	1-249-409-11	CARBON	220	5%	1/4W
R275	1-216-833-11	METAL CHIP	10K	5%	1/16W
R277	1-216-837-11	METAL CHIP	22K	5%	1/16W
R278	1-216-837-11	METAL CHIP	22K	5%	1/16W
R279	1-216-809-11	METAL CHIP	100	5%	1/16W
R281	1-216-821-11	METAL CHIP	1K	5%	1/16W
R282	1-216-837-11	METAL CHIP	22K	5%	1/16W
R283	1-216-839-11	METAL CHIP	33K	5%	1/16W
R284	1-249-409-11	CARBON	220	5%	1/4W
R285	1-216-833-11	METAL CHIP	10K	5%	1/16W
R287	1-216-837-11	METAL CHIP	22K	5%	1/16W
R288	1-216-837-11	METAL CHIP	22K	5%	1/16W
R289	1-216-809-11	METAL CHIP	100	5%	1/16W
R301	1-208-812-11	RES-CHIP	18K	2%	1/10W
R302	1-216-845-11	METAL CHIP	100K	5%	1/16W
R303	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R304	1-216-835-11	METAL CHIP	15K	5%	1/16W
R305	1-249-393-11	CARBON	10	5%	1/4W
R306	1-216-849-11	METAL CHIP	220K	5%	1/16W
R331	1-216-797-11	METAL CHIP	10	5%	1/16W
R332	1-216-841-11	METAL CHIP	47K	5%	1/16W
R333	1-216-821-11	METAL CHIP	1K	5%	1/16W
R334	1-216-821-11	METAL CHIP	1K	5%	1/16W
R351	1-216-821-11	METAL CHIP	1K	5%	1/16W
R352	1-249-383-11	CARBON	1.5	5%	1/6W
R353	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R354	1-216-833-11	METAL CHIP	10K	5%	1/16W
R391	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R392	1-216-797-11	METAL CHIP	10	5%	1/16W
R503	1-216-837-11	METAL CHIP	22K	5%	1/16W
R507	1-216-809-11	METAL CHIP	100	5%	1/16W
R508	1-216-809-11	METAL CHIP	100	5%	1/16W
R509	1-216-809-11	METAL CHIP	100	5%	1/16W
R510	1-216-809-11	METAL CHIP	100	5%	1/16W
R511	1-216-833-11	METAL CHIP	10K	5%	1/16W
R512	1-216-845-11	METAL CHIP	100K	5%	1/16W
R513	1-216-833-11	METAL CHIP	10K	5%	1/16W
R514	1-216-809-11	METAL CHIP	100	5%	1/16W
R515	1-216-845-11	METAL CHIP	100K	5%	1/16W
R516	1-216-845-11	METAL CHIP	100K	5%	1/16W
R517	1-216-849-11	METAL CHIP	220K	5%	1/16W

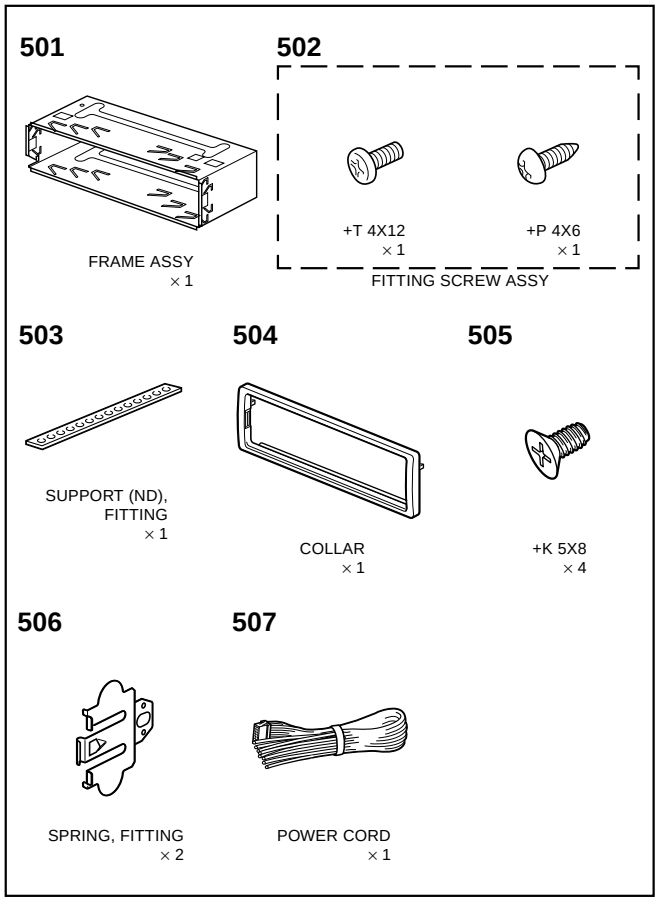
Ref. No.	Part No.	Description			Remark
R520	1-216-821-11	METAL CHIP	1K	5%	1/16W
R521	1-216-821-11	METAL CHIP	1K	5%	1/16W
R522	1-216-821-11	METAL CHIP	1K	5%	1/16W
R523	1-216-821-11	METAL CHIP	1K	5%	1/16W
R524	1-216-821-11	METAL CHIP	1K	5%	1/16W
R525	1-216-845-11	METAL CHIP	100K	5%	1/16W
R526	1-216-845-11	METAL CHIP	100K	5%	1/16W
R527	1-216-845-11	METAL CHIP	100K	5%	1/16W
R528	1-216-845-11	METAL CHIP	100K	5%	1/16W
R529	1-216-845-11	METAL CHIP	100K	5%	1/16W
R530	1-216-845-11	METAL CHIP	100K	5%	1/16W
R532	1-216-845-11	METAL CHIP	100K	5%	1/16W
R538	1-216-813-11	METAL CHIP	220	5%	1/16W
R542	1-216-833-11	METAL CHIP	10K	5%	1/16W
R543	1-216-845-11	METAL CHIP	100K	5%	1/16W
R544	1-216-845-11	METAL CHIP	100K	5%	1/16W
R545	1-216-809-11	METAL CHIP	100	5%	1/16W
R546	1-216-845-11	METAL CHIP	100K	5%	1/16W
R547	1-216-295-11	SHORT	0		
R550	1-216-841-11	METAL CHIP	47K	5%	1/16W
R551	1-216-845-11	METAL CHIP	100K	5%	1/16W
R552	1-216-845-11	METAL CHIP	100K	5%	1/16W
R553	1-216-845-11	METAL CHIP	100K	5%	1/16W
R555	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R556	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R557	1-216-821-11	METAL CHIP	1K	5%	1/16W
R558	1-216-813-11	METAL CHIP	220	5%	1/16W
R561	1-216-833-11	METAL CHIP	10K	5%	1/16W
R562	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R563	1-216-809-11	METAL CHIP	100	5%	1/16W
R564	1-216-809-11	METAL CHIP	100	5%	1/16W
R568	1-216-295-11	SHORT	0		
R570	1-216-845-11	METAL CHIP	100K	5%	1/16W
R571	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R572	1-216-841-11	METAL CHIP	47K	5%	1/16W
R573	1-249-425-11	CARBON	4.7K	5%	1/4W
R575	1-216-845-11	METAL CHIP	100K	5%	1/16W
R577	1-216-841-11	METAL CHIP	47K	5%	1/16W
R580	1-216-809-11	METAL CHIP	100	5%	1/16W
R581	1-216-821-11	METAL CHIP	1K	5%	1/16W
R582	1-216-835-11	METAL CHIP	15K	5%	1/16W
R583	1-216-809-11	METAL CHIP	100	5%	1/16W
R584	1-216-295-11	SHORT	0		
R586	1-216-833-11	METAL CHIP	10K	5%	1/16W
R587	1-216-833-11	METAL CHIP	10K	5%	1/16W
R588	1-249-417-11	CARBON	1K	5%	1/4W
R589	1-216-841-11	METAL CHIP	47K	5%	1/16W
R594	1-216-821-11	METAL CHIP	1K	5%	1/16W
R596	1-216-809-11	METAL CHIP	100	5%	1/16W
R601	1-249-400-11	CARBON	39	5%	1/4W
R602	1-249-400-11	CARBON	39	5%	1/4W
R603	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R604	1-216-833-11	METAL CHIP	10K	5%	1/16W
R606	1-249-400-11	CARBON	39	5%	1/4W
R607	1-249-400-11	CARBON	39	5%	1/4W
R625	1-216-805-11	METAL CHIP	47	5%	1/16W
R631	1-249-417-11	CARBON	1K	5%	1/4W

MAIN **SUB**

Ref. No.	Part No.	Description			Remark
R632	1-249-417-11	CARBON	1K	5%	1/4W
R701	1-216-821-11	METAL CHIP	1K	5%	1/16W
R702	1-216-821-11	METAL CHIP	1K	5%	1/16W
R703	1-216-821-11	METAL CHIP	1K	5%	1/16W
R704	1-216-833-11	METAL CHIP	10K	5%	1/16W
R705	1-216-833-11	METAL CHIP	10K	5%	1/16W
R706	1-216-821-11	METAL CHIP	1K	5%	1/16W
R711	1-216-001-00	METAL CHIP	10	5%	1/10W
R716	1-216-821-11	METAL CHIP	1K	5%	1/16W
R717	1-216-821-11	METAL CHIP	1K	5%	1/16W
R718	1-216-821-11	METAL CHIP	1K	5%	1/16W
R719	1-216-821-11	METAL CHIP	1K	5%	1/16W
R720	1-216-809-11	METAL CHIP	100	5%	1/16W
R751	1-216-821-11	METAL CHIP	1K	5%	1/16W
R753	1-216-833-11	METAL CHIP	10K	5%	1/16W
R754	1-216-841-11	METAL CHIP	47K	5%	1/16W
R755	1-216-841-11	METAL CHIP	47K	5%	1/16W
R756	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
		< VARIABLE RESISTOR >			
RV101	1-223-829-11	RES, ADJ, CARBON 1.0K			
RV201	1-223-829-11	RES, ADJ, CARBON 1.0K			
		< SWITCH >			
S551	1-692-431-21	SWITCH, TACTILE (RESET)			
S552	1-771-540-11	SWITCH, PUSH (1 KEY) (NOSE DETECT)			
		< THERMISTOR >			
TH501	1-803-350-21	THERMISTOR, POSITIVE			
		< TUNER UNIT >			
TU1	A-3282-061-A	TUNER UNIT (TUX-020)			
		< VIBRATOR >			
X501	1-795-134-11	VIBRATOR, CRYSTAL (18.432MHz)			
X502	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
*	1-676-603-21	SUB BOARD			
		**********			
	1-792-195-11	CABLE, FLEXIBLE FLAT (14 CORE)			
		< CONNECTOR >			
CNP801	1-794-064-12	SOCKET, CONNECTOR 14P			
		< LED >			
LED801	8-719-061-16	LED CL-190SR-CD-T (TAPE DECK ILLUMINATION)			
		< SWITCH >			
LSW801	1-771-883-11	SWITCH, TACTILE (WITH LED) (⏏)			
**********					

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
3	1-792-195-11	CABLE, FLEXIBLE FLAT (14 CORE)	
14	1-792-194-21	CORD (WITH CONNECTOR) (POWER)	
63	1-694-787-11	CONDUCTIVE BOARD, CONNECTION	
F781	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
LCD500	1-804-294-11	DISPLAY PANEL, LIQUID CRYSTAL	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#2	7-621-772-20	SCREW +B 2X5	
#3	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#4	7-627-553-28	SCREW,PRECISION +P 2X2.5	
#5	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#6	7-624-104-04	STOP RING 2.0, TYPE -E	
#7	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
#8	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	
#9	7-685-795-09	SCREW +PTT 2.6X12 (S)	
#10	7-685-791-09	SCREW +PTT 2.6X5 (S)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-476-526-11	REMOTE COMMANDER (RM-X114)	
	3-227-098-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-227-099-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)	
	3-230-047-01	HOLDER, BATTERY (for RM-X114)	
**********			

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
501	X-3373-602-1	FRAME ASSY	
502	X-3368-725-1	SCREW ASSY, FITTING	
503	3-924-961-01	SUPPORT (ND), FITTING	
504	3-040-979-01	COLLAR	
505	3-934-325-01	SCREW, +K (5X8) TAPPING	
506	3-233-644-01	SPRING, FITTING	
507	1-792-194-21	CORD (WITH CONNECTOR) (POWER)	



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REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.1	2001.05	Change of Part No. for SPRING, FITTING (ECN-CSA04727)
1.0	2001.03	New